Los Angeles County

REGIONAL PLANNING

Significant Ecological Areas (SEA) Ordinance

IMPLEMENTATION GUIDE

Effective January 16, 2020

CONTENTS

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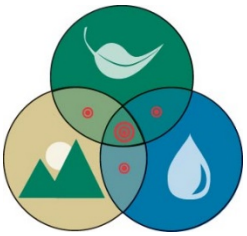
SEA PROGRAM GUIDING PRINCIPLES

BIODIVERSITY:

- Recognize that biodiversity is necessary to maintaining a sustainable Los Angeles County.
- Identify and protect the places where biodiversity exist in Los Angeles County.
- Restore places where biodiversity can be woven through the urban fabric.
- Ensure that the legacy of the unique biotic diversity is passed on to future generations.



RESILIENCY:

- Ensure that individual SEAs are able to thrive by reducing fragmentation, and creating or preserving connectivity and habitat functionality.
- Guide development within SEAs to maximize preservation.
- Encourage best practices for sustainable design in the SEAs that are aligned with the protection of natural resources.

PUBLIC SERVICE:

- Ensure the continuation of natural ecosystem services that improves quality of life for all who live in Los Angeles County.
- Ensure that property rights are maintained in the SEAs by providing clear guidelines and expectations about the requirements for development in SEAs.

CHAPTER 1. INTRODUCTION TO THE SIGNIFICANT ECOLOGICAL AREAS (SEA) PROGRAM

Los Angeles County ("County") is host to one of the most remarkable assortments of biological diversity in North America. Natural communities in the County extend from the Pacific Ocean to the Mojave Desert, with coastal plains and valleys, a 10,000-foot tall mountain range, and hills and canyons in every orientation in between. This irreplaceable diversity of natural and biological resources is our heritage, and the reason for which the County developed the Significant Ecological Area (SEA) Program.

Figure 1. Palos Verdes Coastline, April 2017. Photo by Sergei Gussev (source: Flickr)

The biodiversity of the County is a product of the forces that shaped California, and its variety corresponds directly to the variety of places in the County where we choose to live. The feelings and images we associate with these locations are inextricably entwined in the biota they support. Imagine Palos Verdes without California sagebrush; Saddleback Butte without Joshua trees and creosote; the Tehachapi Mountains without vibrant wildflower fields; the Puente Hills without black walnut and coast live oak; or San Antonio Canyon without California scalebroom, white alder, and western sycamore. Even if you are not familiar with the names of these plants, it doesn't matter—you recognize these places in large part because of their characteristic vegetation and habitats.

Figure 2. Joshua trees under the milky way in the Antelope Valley. Photo by Mayra Vasqez, Los Angeles County

Nature is slow, and the landscape that supports nature is changing, in some cases more rapidly than nature can keep up. Much of this change has already taken place—the San Fernando Valley was once an oak savanna; the western Antelope Valley was once a Joshua-juniper forest. Some of the changes we face may be out of our control, but many are within our ability to shape. Siting development to avoid obvious detrimental impacts to biota is the biggest part of the SEA program and is an effective method for protecting the important biodiversity of Los Angeles County.

Figure 3. Wildflower fields in front of the Tehachapi Mountains, March 2009. Photo by Rennett Stowe (source: Flickr)

IT TOOK A VERY LONG TIME FOR THIS BIODIVERSITY TO BE GENERATED AND DISTRIBUTED THROUGHOUT THE COUNTY THE WAY WE SEE IT TODAY, AND THE LAND USE DECISIONS WE MAKE TODAY WILL PERMANENTLY AFFECT THE BIODIVERSITY WE LEAVE FOR THE FUTURE.

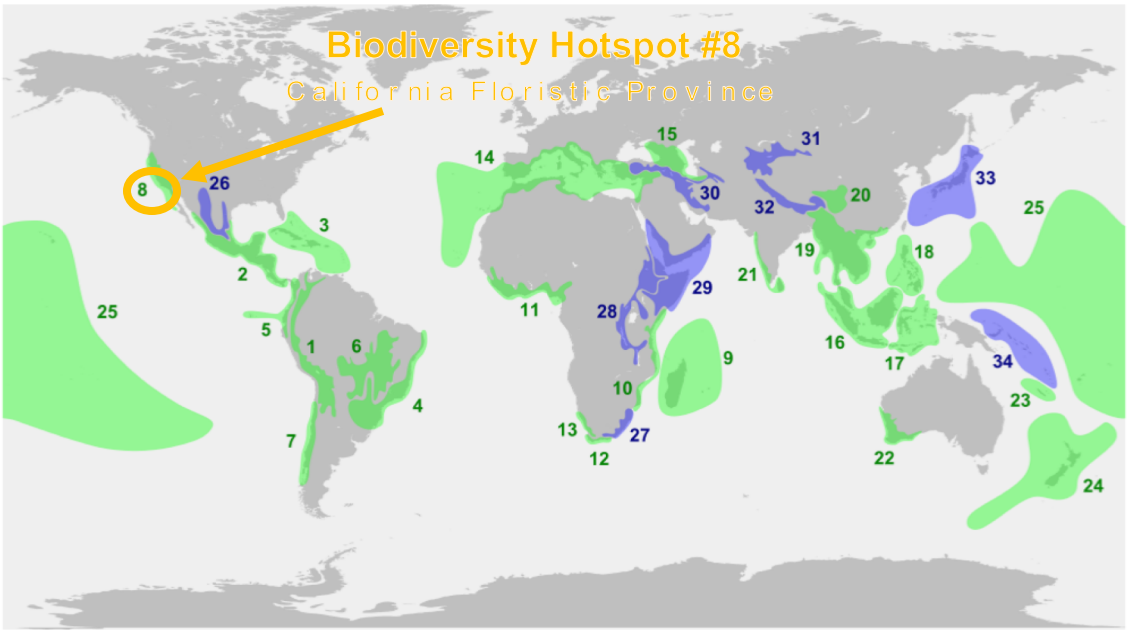


Figure 4. Los Angeles County lies within the California Floristic Province, which is globally recognized as a hotspot of native biodiversity.

SEA PROGRAM COMPONENTS

The SEA Program was originally established as a part of the 1980 County General Plan, to help conserve the genetic and physical diversity within Los Angeles County by designating biological resource areas capable of sustaining themselves into the future. The General Plan 2035 ("General Plan") updated the SEA boundary map, goals and policies in 2015.

SEAs are places where the County deems it important to facilitate a balance between development and biological resource conservation. Where occurring within SEAs, development activities are carefully guided and reviewed with a key focus on site design as a means for conserving fragile resources such as streams, woodlands, and threatened or endangered species and their habitats. The SEA Program does not change the land use designation or the zoning of a property; rather it uses guidance and biological review and the application of certain development standards to balance the preservation of the County's natural biodiversity with private property rights.

The SEA Program consists of the following components, which are discussed in further detail below:

1. The SEA Goals and Policies found in the Conservation and Natural Resources Element of the Los Angeles County General Plan 2035;
2. The Significant Ecological Areas and Coastal Resource Areas Policy Map ("SEA Boundary Map") also found in the Los Angeles County General Plan 2035; and
3. The SEA Ordinance of the County Zoning Code.

SEA Goals and Policies (General Plan 2035, Conservation and Natural Resources Element)

Chapter 9: Conservation and Natural Resources Element, of the General Plan establishes goals and policies for SEAs. Areas of the County designated as SEAs satisfy at least one of the following six SEA Selection Criteria:

A. Habitat of core populations of endangered or threatened plant or animal species.
B. On a regional basis, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution.
C. Within the County, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution
D. Habitat that at some point in the life cycle of a species or group of species, serves as concentrated breeding, feeding, resting, migrating grounds and is limited in availability either regionally or in the County.
E. Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations or represent unusual variation in a population or community.
F. Areas that would provide for the preservation of relatively undisturbed examples of the original natural biotic communities in the County

Appendix E of the General Plan includes detailed descriptions of each SEA, including boundaries, representative resources, wildlife movement opportunities, and designation criteria analysis. The SEA designation does not identify every individual biotic resource, and SEAs are not preserves or conservation areas; rather, SEAs are areas in which planning decisions are made with extra sensitivity toward biological resources and ecosystem functions.

SEA Boundary Map (General Plan 2035 - Figure 9.3)

The General Plan 2035 established the current SEA boundaries, as depicted on the SEA Boundary Map (Figure 5). In order to facilitate maintenance of sufficient habitat and to promote species movement, the SEAs were mapped over large areas of undisturbed or lightly disturbed land, linking together and supporting regional resources, such as agricultural lands, forests, mountains, canyons, and open space.

SEA Ordinance (Title 22 Planning and Zoning Code)

The SEA Ordinance implements the goals and policies of the General Plan by establishing permitting requirements, design standards, and review processes for development within SEAs. The goal of the SEA Ordinance is to guide development to the least impactful areas on a property in order to avoid adverse impacts to biological resources. The level of SEA assessment is dependent on the area of disturbance, sensitivity of biological resources impacted, and consistency with Development Standards. Chapter 2 explains the SEA assessment process in more detail.

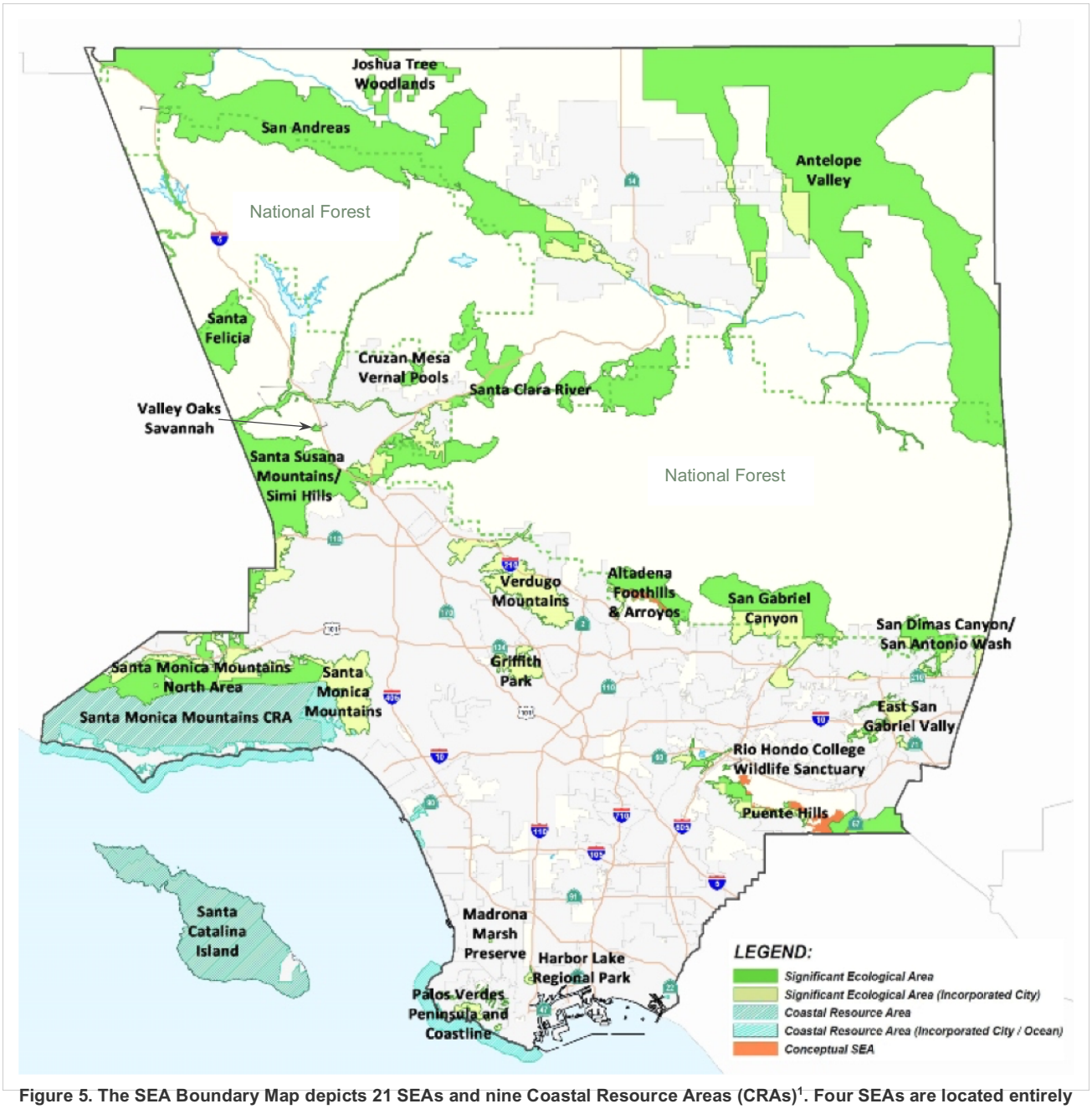


Figure 5. The SEA Boundary Map depicts 21 SEAs and nine Coastal Resource Areas (CRAs)[1]. Four SEAs are located entirely outside of the County's jurisdiction, while 12 others have portions located within incorporated cities. The SEA Boundary Map shows CRAs and SEAs within cities for reference and visual continuity only. The SEA Program applies solely to adopted SEAs located within unincorporated areas. Conceptual SEAs will be subject to SEA Ordinance once they are formally adopted as SEAs.

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[1] CRAs include biological resources equal in significance to SEAs, but, since they occur in the coastal zone, they fall under the authority of the California Coastal Commission. Ecological resources of CRAs are protected by specific provisions within an area's certified local coastal program.

For development located in the Santa Monica Mountains, consult the SMM North Area CSD or the SMM Local Coastal Program for biological regulations (see page 48).

SEA IMPLEMENTATION GUIDE

The purpose of this SEA Implementation Guide ("Guide") is to provide an overview of the SEA Program, guidance for reviewing proposed development in SEAs, and counseling to the public on appropriate development within SEAs. As its name suggests, this document should guide implementation of the SEA Program and clarify regulatory language in the SEA Ordinance, and as such, it should always be used in conjunction with goals and policies of the General Plan, the SEA boundary map, and the SEA Ordinance regulations.

This Guide contains tools and information for:

- identifying and prioritizing SEA Resources present on a project site;
- complying with SEA Development Standards;
- understanding the SEA assessment process, including permit requirements and analysis;
- guiding project design to avoid impacts to SEA Resources;
- meeting natural open space preservation requirements; and
- monitoring the overall effectiveness of the SEA Program in protecting resources.

CHANGES TO THIS GUIDE

This Guide does not provide additional policies or regulatory provisions and is only to be used to clarify goals, policies, ordinance provisions, and processes. Please refer to the SEA Ordinance within Title 22 of the Los Angeles County Code for the specific SEA Ordinance regulations.

The SEA assessment process described within this Guide reflects current and best practices of the Department of Regional Planning ("Department"). This Guide will be updated as necessary by the Director to reflect current permit processing practice. This Guide does not change or revise existing regulatory provisions found within the SEA Ordinance, General Plan, or other applicable regulations or policies of the Los Angeles County Zoning Code or General Plan.

Public notification of changes to this Guide will be posted on the SEA website (planning.lacounty.gov/sea) and emailed to those who subscribe to our email list. Such changes may include revisions affecting the permitting process or updates to the Department maintained lists in the appendices. Email the Environmental Planning and Sustainability section at sea@planning.lacounty.gov to subscribe to the SEA email list.

CHAPTER 2. SEA ORDINANCE ASSESSMENT PROCESS

For projects within SEAs, an additional assessment is required in conjunction with standard planning review of a land use application. The SEA assessment process is primarily focused on the question of how the development would disturb existing native species and natural features on the project site. The level of analysis required is dependent on the amount of impacts to SEA Resources and the amount proposed natural open space to be preserved on-site. The SEA assessment process is outlined in Figure 6.

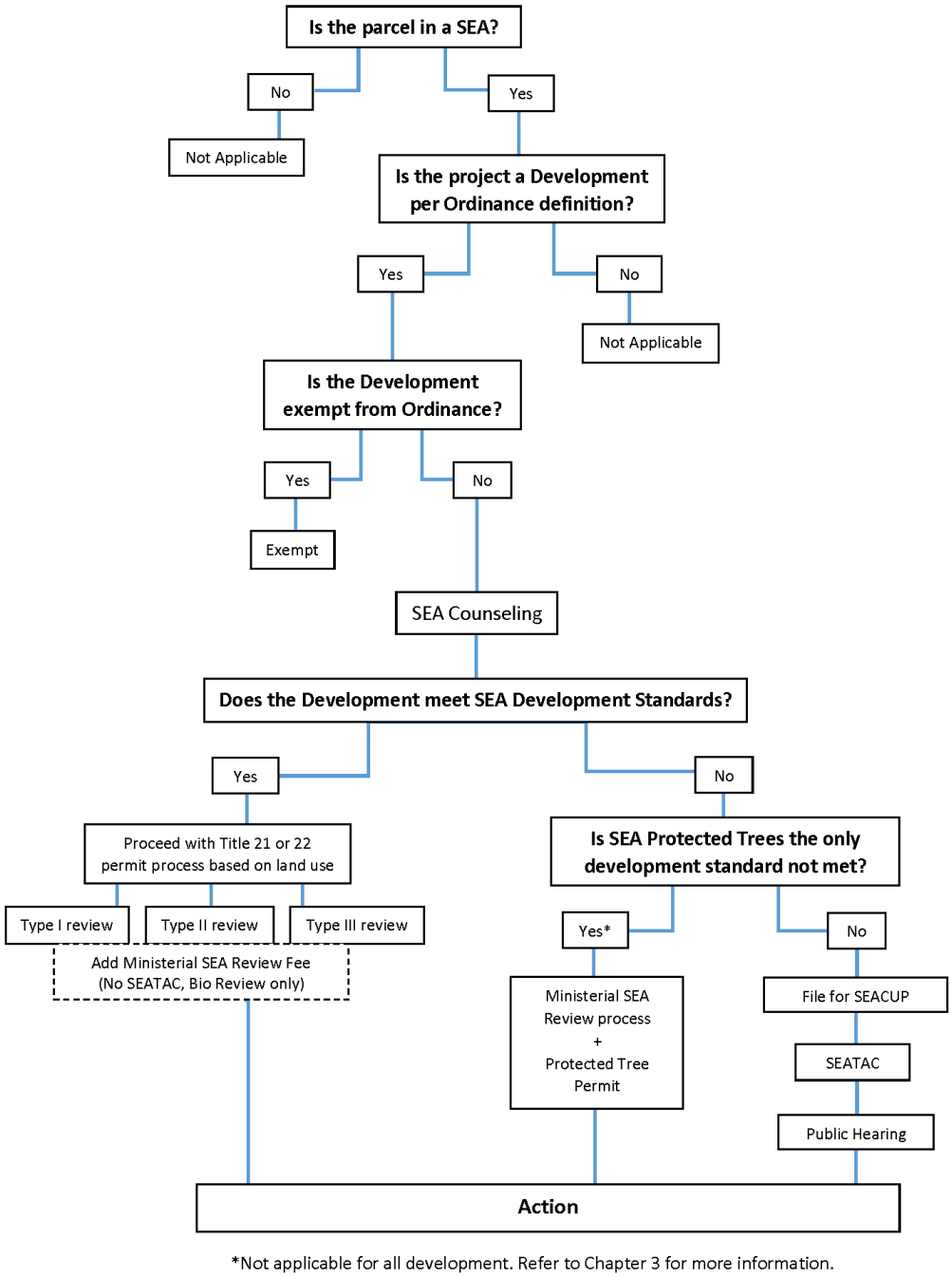

Figure 6. The SEA assessment process flowchart provides an overview of the steps for a proposed project in a SEA.

INFORMATION GATHERING

Is the Parcel in a SEA?

The review process begins when a project site[2] is identified as being located fully or partially within a SEA. This information is available on DRP's online GIS application or by speaking to a planner at the Land Development Coordinating Center ("LDCC"), otherwise known as the Front Counter, or a DRP Field Office.

Is the Project considered a Development within a SEA?

If a project site is identified as being located fully or partially within a SEA, the next question is whether the project is considered development. The SEA Ordinance classifies some activities as development that may not be considered development under other sections of the code. For example, exploratory testing is considered development and is treated as a permitted use under the SEA Ordinance. Refer to the Definitions section of the Ordinance for a detailed list of activities considered to be development in SEAs.

If the entire development, including any fuel modification, will be outside of the SEA, the SEA Ordinance is not applicable to the project. If any part of the development will be within the SEA, then the next step is to confirm whether the project is exempt from the Ordinance or not.

Is the Project Exempt from the Ordinance?

The SEA Ordinance exempts certain land uses from SEA analysis. If the project is found to be exempt from the SEA Ordinance, no further review under the SEA Ordinance is needed. Refer to the Exemptions section of the Ordinance for a full list of exemptions or Chapter 5 of this Guide for a more detailed explanation of each exemption.

Identify Biological Constraints

For all other projects within SEAs that are not exempt, the applicant will need to hire a SEATAC Certified Biologist[3] to prepare a Biological Constraints Map ("BCM") for the project site (see Chapter 6). The BCM will identify and map priority biological areas and other natural resources on and near to the project site, which need to be considered and avoided. Assessing the biological constraints on a project site at the onset of project design will help guide development to the least impactful location on the property. When siting the project, it is important to consider the amount of vegetation disturbance and the ability for the project to comply with the prescribed setbacks and preservation requirements in the SEA ordinance.

At this time, the applicant should also be forming a project team (e.g. architect, engineer(s), landscape architect, Native American consultant, etc.) and starting the preliminary design of the project. Applicants are encouraged to have the BCM prepared early in the design process before fully developing architectural or engineered plans. The BCM should be utilized in the same way that a geologic constraints map would be used: to determine the most appropriate locations for the various components of the project based on the constraints (in this case biological) of the landscape. This initial phase of laying out the placement of the project is called the Conceptual Project Design. See Chapter 5 (Permit Analysis) for information regarding what is required in a Conceptual Project Design.

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[2] The project site includes all parcels and/or lots that are wholly or partially impacted by the project.
[3] Found online at planning.lacounty.gov/agenda/seatac

SEA COUNSELING

A SEA Counseling meeting is required for all non-exempt projects within a SEA, unless waived by the Director. At her sole discretion, the Director may waive the SEA Counseling or BCM requirement where she deems it unnecessary to determining the appropriate SEA assessment process.

A project is ready to be scheduled for a SEA Counseling meeting when:

1. the applicant needs additional project specific guidance in order to incorporate all of the Development Standards into the Conceptual Project Design, or
2. the conceptual project has been planned with the least amount of impacts to SEA Resources and is ready to move forward with detailed design plans.

WHEN CAN SEA-COUNSELING AND/OR THE BCM BE WAIVED?

- ✓ If the project consists exclusively of exploratory testing or other temporary activity occurring entirely within a paved or graded area such as a highway, street, road, or driveway;
- ✓ For renewal of a wireless facility in the public right-of-way with little to no discernable changes to the existing facility and no new ground disturbance;
- ✓ When a SEA CUP is clearly inevitable due to the proposed project's scale or use, hence necessitating a full BCA and Biota Report and making the SEA Counseling and BCM unnecessary or redundant; or
- ✓ If the applicant formally requests a SEA CUP (including SEATAC review), thus foregoing any possibility of SEA Review and agreeing to the SEA CUP process.

During SEA Counseling, the applicant will meet with a Case Planner and County Biologist who will review the BCM and Conceptual Project Design and determine whether the proposed development will require a Ministerial SEA Review, a Ministerial SEA Review with a Protected Tree Permit, or a SEA Conditional Use Permit ("SEA CUP", discretionary). At the election of the prospective applicant, the SEA Counseling may be combined with a Zoning Permits or Land Divisions One-Stop to review the conceptual plan for consistency with Titles 21 and/or 22 at the same time.

DOES THE DEVELOPMENT MEET SEA DEVELOPMENT STANDARDS?

Development that is consistent with the SEA Development Standards will qualify for a Ministerial SEA Review per County Code Section 22.102.060, which is a ministerial review process that does not require additional biological reports or mitigation measures, and ensures compliance with all pertinent Development Standards once the application is submitted. Development that cannot comply with the SEA Protected Trees Development Standard but complies with all other Development Standards, may still be eligible for Ministerial SEA Review if the project qualifies for a Protected Tree Permit per Section 22.102.070 (refer to Chapter 3). All other development within SEAs will require a SEA Conditional Use Permit per Section 22.102.080, which is a discretionary review process that requires additional biological reports, mitigation measures, SEA Technical Advisory Committee ("SEATAC") review, and a public hearing.

At the conclusion of the SEA Counseling, the Case Planner and County Biologist will recommend an appropriate SEA assessment process for the project. This determination will address whether:

1) the BCM adequately documents the biological resources on the project site, and
2) the Conceptual Project Design adequately demonstrates the ability of the project to comply with the SEA Development Standards.

If the initial conceptual design does not demonstrate compliance with the applicable SEA Development Standards, Department Staff ("Staff") may provide guidance for evaluating alternative design options, and the applicant will have the opportunity to redesign the project before moving forward with the application process. Alternatively, the applicant may choose to move forward with a SEA CUP, in which case the County Biologist will provide guidance on what additional biological reports will be required (Chapter 6).

It is important to note that the SEA Counseling analysis and recommendation may change if the development footprint of the proposed project changes substantially from that which was reviewed at SEA Counseling. For this reason, it is recommended that an additional SEA Counseling meeting be scheduled after a redesign has occurred to re-evaluate the project impact on SEA Resources and determine which type of SEA assessment will be needed. The SEA Counseling fee covers up to two SEA Counseling submittals. Additionally, this fee will be rolled over and applied toward permit fees for projects filed within one year of the SEA Counseling.

FILE PROJECT APPLICATION/STAFF REVIEW

After the SEA Counseling and other relevant project counseling (e.g. One-Stop), the applicant should proceed with the full project design and preparation of all required application materials for the appropriate land use permits and SEA assessment. Once all materials have been prepared, the applicant should file the required application(s) and pay required fees.

The applicant will file for the SEA assessment type that was recommended at the conclusion of the SEA Counseling. After the full application has been submitted, Staff will begin the appropriate level of SEA assessment (ministerial or discretionary). However, if substantial changes to the development footprint have been made since the SEA Counseling determination and have not been reviewed by the County Biologist, Staff may re-evaluate the correct SEA assessment process based on the new information presented.

MINISTERIAL SEA REVIEW

There is no separate permit or application form for a Ministerial SEA Review (Section 22.102.060). Since this is a ministerial (Type I) review, it will be incorporated into the appropriate land use permit of the project with an additional Ministerial SEA Review fee. The Case Planner, in consultation with the County Biologist, will verify that the SEA Development Standards have been incorporated into the project design. A site visit by the County Biologist may be necessary at this time to confirm site conditions[4]. Once it is determined that the project is consistent with the SEA Ordinance, the Case Planner will verify that the Ministerial SEA Review of the project is complete and continue with processing the land use permit.

BUILDING SITE AREA

Only development with a Building Site Area of 20,000 square foot or less is eligible for Ministerial SEA Review. The Building Site Area is the portion of the development footprint that is or will be graded, paved, constructed, or otherwise physically transformed. To calculate the Building Site Area, measure the total area encompassing the building pad, all graded slopes, temporary and permanent staging areas, areas impacted by exploratory testing, all structures, decks, patios, impervious surfaces, retaining walls, and

[4] Generally the need for a site visit will be determined at the SEA Counseling, but the visit will not occur until after the application has been filed.

parking areas. Certain development associated with the primary use may be excluded from the calculation of Building Site Area for the purposes of determining eligibility for Ministerial SEA Review, including:

- ✓ the area of one access driveway or roadway that does not exceed 300 feet in length and 20 feet in width, and that is the minimum design necessary, as required by the LA County Fire Department,
- ✓ the area of one turn-around not located within the approved building pad, and that is the minimum design necessary to ensure safety and comply with Fire Department requirements,
- ✓ the area of graded slopes exclusively associated with the access driveway or roadway and Fire Department safety turn-around indicated above; and
- ✓ the area of fuel modification or brush clearance required to provide defensible space for the purposes of fire safety, to the satisfaction of LA County Fire Department fire safety standards.

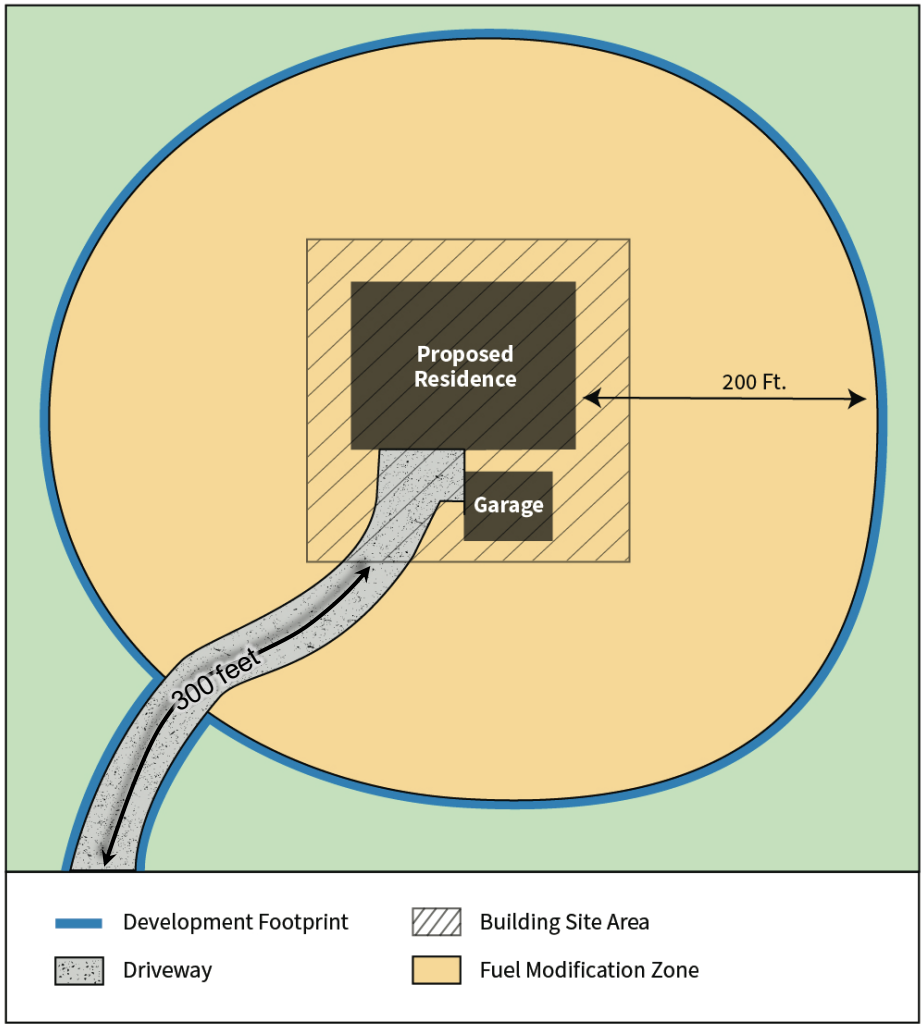


Figure 7. The Development Footprint encompasses the area of disturbance for development, including but not limited to, the building pad, all structures, driveways and access, fire department turn-arounds, grading, test pits, septic systems, wells, fuel modification areas, and any direct habitat disturbances associated with the development. The Building Site Area is the portion of the development footprint that includes the building pad and all graded slopes, all structures, decks, patios, impervious surfaces, and parking areas.

Note that any such development excluded from the calculation of Building Site Area is still considered part of the development footprint and must comply with all Development Standards (see Chapter 4).

PROTECTED TREE PERMIT

If the development cannot comply with the SEA Protected Trees Development Standard (subsection 22.102.090(B)), but demonstrates the ability to comply with all other relevant Development Standards, the project may be able to obtain a Protected Tree Permit in conjunction with the Ministerial SEA Review. A Protected Tree Permit is only available for developments with encroachments or that remove two or fewer protected trees. Heritage trees may not be removed with a Protected Tree Permit. See Chapter 3 for information regarding SEA Protected Trees, including the Protected Tree Permit process and application materials.

SEA CUP (DISCRETIONARY)

When development does not meet the SEA Development Standards, a SEA CUP will be required to consider whether the project is compatible with the goals and policies of the SEA Program. The SEA CUP will analyze both land use and impacts to SEA Resources. It requires a submittal of a complete CUP application package, SEA CUP and related fees, and additional required biological review.

During the SEA CUP review process, the County Biologist will conduct a site visit, review the Biological Constraints Analysis (BCA) and any other necessary reports (such as protocol surveys, wetland delineations, oak tree reports, etc.), and work with the applicant to develop appropriate mitigation and monitoring strategies, which will be documented in a Biota Report. All SEA CUPs are also subject to the California Environmental Quality Act (CEQA). The Case Planner will provide additional information and guidance on complying with the CEQA process on a case by case basis.

SEATAC REVIEW

All developments which require a SEA CUP will also require additional review by the Significant Ecological Area Technical Advisory Committee ("SEATAC")[5]. SEATAC is a panel of independent experts who assist the Department in assessing a project's impact on biological resources within SEAs. A project may be scheduled for a SEATAC meeting once the Case Planner and County Biologist have verified that all application filing materials are complete, adequate, and ready for SEATAC review. SEATAC purview consists of the following:

- Determination of adequacy of the biological constraints analysis and biota report,
- Recommendations for project features or mitigation measures to minimize the proposed impacts to SEA Resources, and
- Recommendation on the project's compatibility with the SEA Ordinance and Program.

After the project has gone through the appropriate biological and environmental review, the Case Planner will evaluate the project against the SEA Ordinance's required findings and require any appropriate conditions of approval before the project is taken to Public Hearing.

[5] The SEA Ordinance gives the Director the sole discretion of waiving the SEATAC requirement for a project. If the Director waives SEATAC review, the reasons for waiving the review will be carefully documented by staff and included in the report for the public hearing.

For more information on SEATAC procedures, refer to the SEATAC Procedural Manual maintained on the Department website[6].

PUBLIC HEARING

The last step of the SEA CUP process is a public hearing. Projects which go through a SEATAC review and are found to have minimal impacts to SEA Resources may be scheduled for a public hearing before a Hearing Officer. Projects which propose substantial impacts to SEA Resources will be scheduled for a public hearing before the Regional Planning Commission ("RPC").

ENFORCEMENT

Development in SEAs that did not receive a SEA assessment and is not exempt from the SEA Ordinance is considered a violation. A Notice of Violation will be issued by the Zoning Enforcement section and will require the unpermitted development to obtain a SEA permit or restore the disturbed area back to its original condition with a Restoration Permit.

The process to obtain an approved permit for unpermitted development will follow the same process outlined in this Chapter. The disturbed areas will have to be stabilized with temporary erosion control measures and temporarily seeded with locally indigenous species as directed by the County Biologist within 30 days of the Notice of Violation issuance.

[6] See planning.lacounty.gov/agenda/seatac for SEATAC materials.

CHAPTER 3. SEA PROTECTED TREES

Native trees are those that evolved and occur naturally in a given location. Maintaining and protecting native trees in SEAs is important not only for the health and perpetuation of the SEAs, but also for the welfare of the County as a whole. The intent of the tree protection regulations in the SEA Ordinance is to encourage responsible management of trees within SEAs.

Figure 8. Native trees are especially important because they coevolved with the flora and fauna of the region, are adapted to local climates and soils, and are intricately tied to the function of ecosystems and the maintenance of biodiversity.

Healthy trees provide benefits for public health (e.g. producing oxygen, reducing smog, and intercepting airborne particulates), social welfare (e.g. reducing stress and promoting physical activity), the environment (e.g. filtering, slowing and retaining rainwater, and cooling air temperatures), and the economy (e.g. improving property values). And native trees are especially important because they coevolved with the flora and fauna of the region, are adapted to local climates and soils, and are intricately tied to the function of ecosystems and the maintenance of biodiversity.

SEA PROTECTED TREES

A list of trees that are native to each SEA is included in Appendix A. SEA native trees become protected once their trunk diameter reaches the size indicated in the list. Trunk diameter is measured at 54 inches above natural grade (also referred to as “diameter at breast height” or “DBH”).

The size at which native tree species become protected was determined as follows:

- ✓ All Joshua trees (*Yucca brevifolia*) and California juniper (*Juniperus californica*) are protected, regardless of size[7],
- ✓ Riparian species and trees listed as rare by California Native Plant Society (“CNPS”) are protected at 3-inch DBH,
- ✓ Coniferous species are protected at 5-inch DBH, and
- ✓ Upland hardwood species are protected at 6-inch DBH.

Additionally, for all listed native trees with multiple trunks, the tree is protected if the combined diameter of the two largest trunks equals eight inches or more.

HERITAGE TREES

A SEA CUP is required to remove any Heritage Tree, which are considered irreplaceable because of their rarity, distinctive features, and prominence within the landscape. To be designated as a Heritage Tree, a SEA Protected Tree must have a single trunk that measures 36 inches or more in diameter, or two trunks that collectively measure 54 inches or more in diameter. For tree species with unnaturally enlarged trunks due to injury or disease (e.g., burls and galls), the tree must be at least 60 feet tall or 50 years old. Joshua

[7] These are very slow growing trees that are particularly vulnerable to impacts of development and important to the maintenance of biodiversity of the SEAs in which they occur.

and juniper trees, which have naturally thin trunks, must have a height of 20 feet or a canopy spread of 35 feet, respectively, to be designated as a Heritage Tree. Age should be determined from historical accounts, photographs, or associations with historic structures; age may not be determined by growth ring counts in cores taken from the edge to the center of the tree.

TREE PROTECTED ZONE

Tree roots extend well beyond the visible canopy of the tree and can be greatly impacted by disturbances to the ground around them (e.g., from compaction, grading, paving, etc.). Healthy roots that have access to nutrients, air, and water are vital to maintaining the health of the tree. Subsection 22.102.090(B) establishes minimum setbacks for SEA Protected Trees, known as the Tree Protected Zone, or "TPZ". The TPZ extends a minimum of five feet out from the dripline of a protected tree or 15 feet from the trunk, whichever distance is greater.

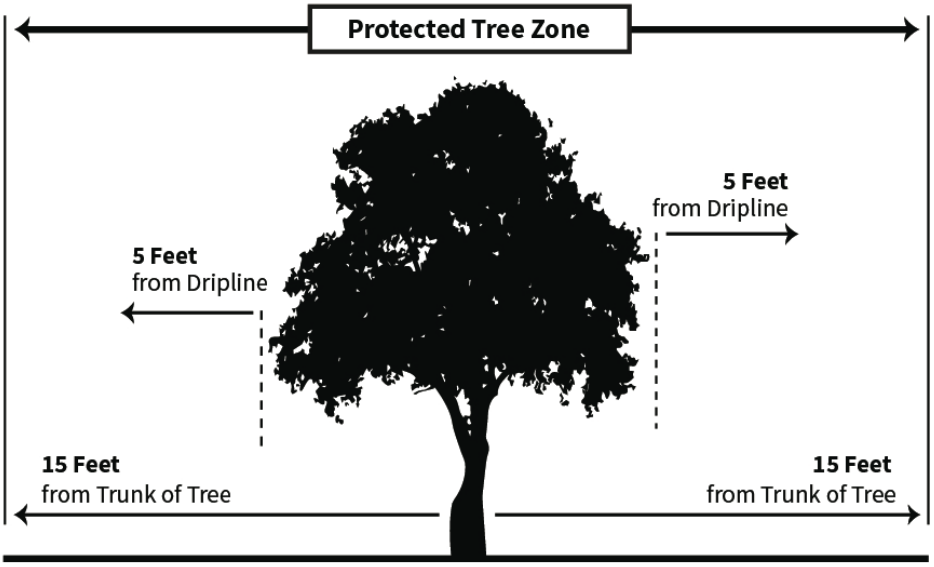


Figure 9. Development must be set back a minimum of 5-feet from the dripline or 15-feet from the trunk of a SEA Protected Tree, whichever distance is greater.

SEA PROTECTED TREE EXEMPTIONS

The following exemptions (B, M, N, and P) listed in 22.102.040 (Exemptions) pertain to SEA Protected Trees. See Chapter 5 of this Guide for a full explanation of SEA Ordinance exemptions.

Exemption B.

> *All areas outside the boundaries of the Antelope Valley Area Plan:*
> 1. *Additions or modifications to existing single-family residences, associated accessory structures, or animal keeping areas/structures, as long as such addition or modification does not increase the total building site area to more than 20,000 square feet or* ***encroach into more than 10 percent of the dripline for up to four SEA Protected Trees****.*

This exemption allows for expansions or modifications to single-family residences, or their accessory structures or animal keeping facilities, to have minimal encroachments on a limited number of trees. Note that it specifically refers to encroachments into the driplines of the protected trees, rather than the protected zone.

Key elements of this exemption related to SEA Protected Trees include:

- ✓ the addition or modification may not encroach within more than 10 percent of the dripline of any protected tree, and
- ✓ the addition or modification may not encroach within the driplines of more than 4 protected trees.

Exemption M.

> *Emergency removal of any tree listed on the SEA Protected Tree List maintained by the Department, due to a hazardous or dangerous condition, or being irretrievably damaged or destroyed through flood, fire, wind, lightning, drought, pests, or disease, as determined after visual inspection by a forester with the Fire Department in consultation with a County Biologist.*

The County Forester can issue an emergency tree removal permit for trees that are determined to be in a hazardous or dangerous condition. This generally means that the tree is in a condition and location that directly endangers the safety of people or property. An emergency removal may also be allowed when the tree is determined to be diseased or infested by non-native pests and removal of the tree is determined to be necessary to prevent a more widespread infestation.

Exemption N.

> *Tree maintenance, limited to removal of dead wood and pruning of branches not to exceed two inches in diameter and 25 percent of live foliage within a two year period, intended to ensure the continued health of a SEA Protected Tree, in accordance with guidelines published by the National Arborists Association. Should excessive maintenance, trimming, or pruning adversely affect the health of the tree, as determined by the County Biologist or Forester with the Fire Department, a Protected Tree Permit per Section 22.102.070 (Protected Tree Permit) or SEA Conditional Use Permit (SEA CUP) per Section 22.102.080 (SEA Conditional Use Permit) may be required.*

This exemption allows for pruning of protected trees that is necessary to maintain the health of the tree, remove fuel ladders for fire protection, or protect persons or property from the risk of falling limbs. Tree maintenance is exempt from the Ordinance as long as the maintenance is performed in accordance with guidelines published by the National Arborist Association, and as long as the pruning:

1. does not remove branches in excess of two-inch diameter, and
2. does not remove more than 25% of the tree's overall canopy within a two year period.

There are no submittal requirements; however, pruning or trimming in excess of that allowed that leads to loss of the tree or a notable decline in tree health, as determined by a Forester with the Fire Department or the County Biologist, is a violation of the Ordinance and will require a Protected Tree Permit.

Exemption P.

> *Introduction of trees which qualify for protection under the definition of SEA Protected Tree, but which can be demonstrated to have been planted by a person for the purposes of affecting the architecture, climate, or aesthetics of a given place and are, therefore, considered landscape features, or subsequent removal or other alteration of only those trees that qualify as introduced. Removal or other alteration of an introduced tree shall require documentation of the introduction. Trees planted as mitigation do not qualify as introduced.*

Trees that qualify as protected but which can be demonstrated to have been planted by a person for the purposes of affecting the architecture, climate, or aesthetics of a given place and that are, therefore,

considered landscape features, may be planted, or removed or altered without an SEA or Protected Tree permit. Documentation of the planting must be provided, and may be in the form of invoices, photographs, an approved landscaping plan that clearly indicates the location and species of the new tree to be planted, or other reasonable means. Trees planted as mitigation do not qualify as introduced.

SEA PROTECTED TREES DEVELOPMENT STANDARD

The SEA Ordinance includes the following Development Standards for SEA Protected Trees:

1. Establishment of the tree protected zone (see above),
2. Limitation on number and extent of encroachments allowed:
   - ✓ no more than four encroachments into the TPZ of SEA Protected Trees; and
   - ✓ no more than 10 percent encroachment into the TPZ of each of those protected trees.
3. Limitation on number and size of removals allowed:
   - ✓ removal of one SEA Protected Tree[8] is allowed through Ministerial SEA Review; but
   - ✓ the tree to be removed cannot be a Heritage Tree.

A development that can comply with this requirement for protected trees and all other Development Standards requires only the Ministerial SEA Review. Any impacts to SEA Protected Trees beyond that allowed by the Development Standard require either a Protected Tree Permit or a SEA CUP (TABLE 1).

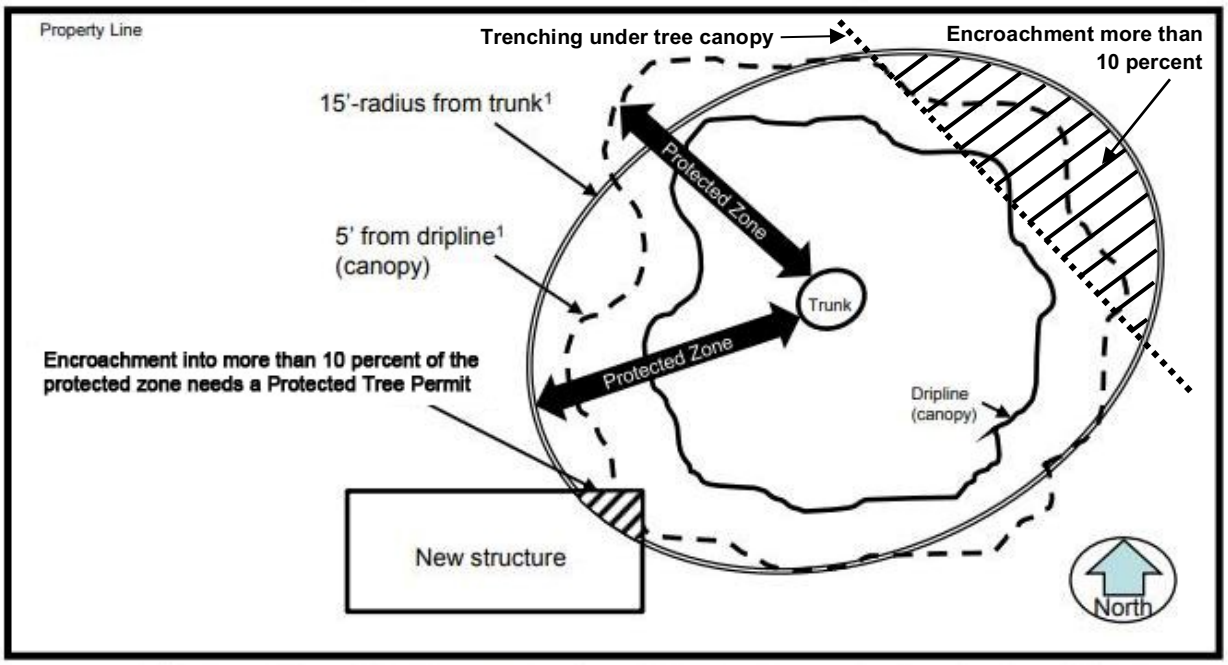


Figure 10. Any development (including but not limited to structures, walls, fences, grading, paving, irrigation, landscaping, decks, storage, and parking) must be located outside the tree protected zones of all SEA Protected Trees. When determining whether there is an encroachment, consider the protected zones of both protected trees on the subject property and those outside the property, including within the public right of way.

[8] Oak trees may require additional application materials for an Oak Tree Permit.

PROTECTED TREE PERMIT

If a development is able to meet all Development Standards except for impacts to SEA Protected Trees, it may be able to obtain a Protected Tree Permit ("PTP") and proceed with the Ministerial SEA Review. All PTPs will have a corresponding Ministerial SEA Review, since the Ministerial SEA Review process will determine that all other Development Standards are met and identify the need for a PTP. A PTP may be obtained for pruning of protected trees in excess of that allowed by Exemption N, encroachments of up to 30% of the TPZ for any number of protected trees, and/or removal of two (non-heritage size) protected trees, provided that such activity can meet the findings and burden of proof. Removal of more than two SEA Protected Trees or removal of any Heritage Tree requires an SEA CUP.

A PROTECTED TREE PERMIT (PTP) IS REQUIRED WHEN…

the development is able to meet all development standards, except for the SEA Protected Trees development standard, and the impacts to SEA Protected Trees include one or more of the following:

- ✓ Pruning of branches greater than two-inches diameter;
- ✓ Pruning in excess of 25% of live foliage;
- ✓ Encroachments up to 30% of the protected zone; or
- ✓ Removal of up to two trees that are not designated as Heritage Trees.

APPLICATION MATERIALS

The PTP will follow the Type II Review process. The application materials for PTPs include:

1. Standard application materials for Type II Review
2. Protected Tree Report prepared by a qualified arborist or resource specialist, which includes:
   - ✓ a tree survey map;
   - ✓ descriptions of all existing SEA Protected Trees on the subject property and any potentially impacted SEA Protected Trees adjacent to the subject property;
   - ✓ evaluation of existing health and potential impacts of development for each SEA Protected Tree;
   - ✓ identification of all SEA Protected Tree removals and encroachments; and
   - ✓ recommendations for avoiding, minimizing, and/or mitigating SEA Protected Tree impacts[9].

Oak tree species may require additional application materials for an Oak Tree Permit.

MITIGATION & MONITORING

Removal of any SEA Protected Tree will require mitigation in the form of two replacement plantings. Replacement trees should be seedlings of the same species being removed, and should be planted in an area of the project site where there is suitable habitat and where the trees will be able to remain in perpetuity. Undersized, naturally sprouted trees of the same species growing on-site may be protected as

[9] If replacement plantings are required for mitigation of tree removals, recommendations for planting and maintaining these plantings should be included in the report as well. Proposed locations for the replacement plantings should be shown on the tree survey map or site plan.

mitigation trees. The replacement trees will need to be nurtured and maintained in a healthy condition, and will be monitored. If any of the replacement plantings fail during the monitoring period of seven years, the applicant will be responsible for replanting and nurturing those new trees.

Protected Tree Permits for encroachments or excessive pruning will require monitoring of those impacted trees for a period of seven years. The County Biologist or a Forester with the Fire Department will conduct a minimum of three monitoring visits during that seven year period, with visits occurring in years two, four, and seven. If, at any time during the monitoring period, the County Biologist or Forester detects a noticeable decline in the tree's health, they will make recommendations regarding actions that should be taken to improve the tree's condition. If the tree continues to suffer unacceptable decline of health and vigor or is found to be dead at the end of the monitoring period, the applicant will be required to mitigate that loss by planting two replacement trees (for each tree lost). The decline of health and vigor determination will be based on the County Biologist or Forester's field knowledge, International Society of Arboriculture references, and seasonal anomalies.

TABLE 1. SEA PROTECTED TREES PERMIT REQUIREMENTS

IMPACT		PERMIT	MITIGATION
Pruning	Up to 25%; ≤ 2-inch branch diameter	Exempt	None
	More than 25%; > 2-inch branch diameter	Protected Tree Permit	Monitoring – 7 years
Encroachment	Up to 10%; maximum 4 trees	Ministerial SEA Review	None
	Up to 30%; any number of trees	Protected Tree Permit	Monitoring – 7 years
	More than 30%	Processed as Removal (see below)	
Removal	1 tree (under heritage size)	Ministerial SEA Review	None
	2 trees (under heritage size)	Protected Tree Permit	2:1
	More than 2 trees	SEA CUP	Determined through discretionary review
	Heritage Trees	SEA CUP	

PROTECTED TREE FUND

If the County Biologist or Forester determines that replacement plantings on the project site is inappropriate (e.g. no adequate locations for plantings exist), they may recommend that the applicant pay into the Protected Tree Fund instead. The amount to be paid into the fund would be an amount equivalent to the resource value of the trees described in the Protected Tree Report. The resource value of the trees will be calculated according to the most current edition of the International Society of Arboriculture's "Guide for Plant Appraisal", and approved by the County Biologist or Forester. The applicant should consult with a qualified arborist or resource professional in calculating the value of SEA Protected Trees.

The Protected Tree Fund will be used for projects related to native tree and woodland establishment and protection, including planting, establishing, and maintaining native trees on public lands, purchasing native tree woodlands, and/or purchasing sensitive native trees of ecological, cultural, or historic significance. Up to twenty percent of the funds collected may be used to study and identify appropriate programs for use of the fund. Programs can include for outreach and educational purposes.

SEA CUP FOR IMPACTS TO SEA PROTECTED TREES

Any development that will remove a Heritage Tree or will remove more than two non-heritage size SEA Protected Trees will require an SEA CUP. Mitigation and monitoring for such removals will be determined as part of the discretionary SEA CUP review and included as conditions of approval in the permit. Mitigation and monitoring requirements for SEA CUPs should meet or exceed the mitigation and monitoring requirements of the PTP.

BEST MANAGEMENT PRACTICES

The following are recommended best practices for properly caring for trees in SEAs.

DEAD AND FALLEN TREES

Dead and/or fallen trees provide habitat for a host of flora and fauna, and contribute to the nutrient cycling of an ecosystem. Therefore, when occurring outside of the development footprint (which includes fuel modification areas), dead and/or fallen trees should be left in place to serve their purpose as a natural part of the habitat. Removal of a tree which has fallen naturally and/or the felling and subsequent removal of standing, certifiably dead trees is considered development and may require a SEA permit or Protected Tree Permit. An exemption for emergency removal may be obtained if a visual inspection by a Forester with the Fire Department determines removal is necessary due to a hazardous or dangerous condition (e.g. disease, potential for spreading infestation to other trees, blocking public roadways, etc.). Any emergency removal of infested, dead, or fallen trees which have been shown to have a disease or infestation should follow proper Best Management Practices for tree removal and disposal.

IRRIGATION

Spray-type irrigation systems should not be used within a tree's protected zone and water should never be sprayed against the trunk of a native tree. Continuously wet soil near the root crown (the area where the tree trunk meets the soil surface) favors the growth of tree pests that lead to rot and disease.

NESTING BIRDS

Proposed project activities (including, but not limited to, tree removal, maintenance, and/or construction activities) should occur outside of the avian breeding season ("nesting bird season") to avoid take of birds or their eggs. Nesting bird season generally runs from February 1 to August 31, but may start as early as January 1 for some raptors. Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (Fish and Game Code Section 86), and includes take of eggs or young resulting from disturbances which cause abandonment of active nests. Depending on the avian species present, a qualified biologist may determine that a change in the breeding season dates is warranted.

If avoidance of the avian breeding season is not feasible, a qualified biologist with experience in conducting breeding bird surveys should conduct nesting bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 500 feet of the disturbance area. Depending on the habitat present and the magnitude of disturbance to take place, the biologist may recommend weekly surveys to be conducted over a 30-day period, two surveys to be conducted within one or two weeks prior to disturbance, or a single survey to be

conduct within three days of disturbance. Regardless of the number of surveys conducted, the last survey should always be conducted no more than three days prior to the initiation of project activities.

If a protected native bird is found, the project proponent may delay all project activities within 300 feet of on- and off-site suitable nesting habitat (or within 500 feet for suitable raptor nesting habitat) until August 31. Alternatively, the qualified biologist may continue the surveys in order to locate any nests. If an active nest is located, project activities within 300 feet of the nest (within 500 feet for raptor nests) or as determined by a qualified biological monitor, should be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting.

For more information on bird-friendly tree maintenance, refer to Los Angeles Audubon's "Guide to Bird-Friendly Tree and Shrub Trimming and Removal", available online at: planning.lacounty.gov/site/sea/resources.

TREE TRIMMING OR PRUNING

Be careful not to excessively and inappropriately trim native trees. Removal of live tissue for ornamental or aesthetic purposes alone is not appropriate for SEA Protected Trees. Over trimming results in trees that are less healthy and more vulnerable to pests and disease, and reduces the amount of habitat available for birds and other wildlife. The amount of live foliage that can be removed while maintaining a healthy tree depends on a variety of factors, such as the tree's size, species, and age. Younger trees tolerate more pruning than mature trees. Generally, no more than 25% of a tree's live foliage should be removed at once – less for mature trees. Removing even a single, large limb can result in significant canopy loss and can create a wound that the tree may not be able to close, leaving it vulnerable to pests and disease. This is especially true for mature trees that are already impacted by drought, development, or other stressors, or if the pruning is done improperly or at the wrong time of year. For this reason, pruning of branches two-inches or more in diameter is prohibited without a Protected Tree Permit.

With the exception of periodic removal of dead wood, most native trees require very little pruning. Dead wooding, which refers to the removal of dead tissue in the tree canopy, may be performed without a permit. Pruning of branches with major defects, such as decay, cavities, cracks, physical imbalance, fire damage, disease, or insects, that pose a threat to the safety of persons or property, or to the continued well-being of the tree, should follow standards endorsed by the International Society of Arboriculture.

It is always recommended to consult with a certified arborist, licensed landscaper, or qualified tree trimmer who knows and cares about tree health before pruning or trimming native trees. For more information on proper tree pruning and maintenance, visit the International Society of Arboriculture website at: www.treesaregood.org/treeowner/pruningyourtrees.

PROTECTED TREE PERMIT AND OAK TREE PERMIT

When oak trees of regulation size (8-inch DBH or more) per the Oak Tree Permit are impacted along with other SEA Protected Trees, the oak trees shall be counted as SEA Protected Trees. The Oak Tree Permit required for the regulation size oak trees shall be folded into and processed through either a Ministerial SEA Review, Protected Tree Permit, or SEA CUP, depending on the impacts. No accompanying Oak Tree Permit will be required in these instances.

CHAPTER 4. DESIGN & DEVELOPMENT STANDARDS

Development standards set forth minimum requirements and maximum allowances (e.g., minimum setbacks from a street or maximum height of a structure). The SEA Ordinance establishes Development Standards to ensure that development is designed in a manner that supports the long-term sustainability of each SEA. Projects must comply with all Development Standards in order to obtain approval, or they may request modification of Development Standards through a SEA Conditional Use Permit. This chapter provides additional guidance and information to assist applicants with understanding and meeting Development Standards, as well as some best practices for designing development in a way that is compatible with SEA resources.

RECOMMENDED DESIGN GUIDELINES FOR PROJECTS WITHIN SEAS

- ✓ Locate new development as close to existing development and roadways as possible.
- ✓ Cluster structures and infrastructure within 25% or less of the lot area (including roads, utilities, landscaping, and fire management requirements) and maintain the remaining portions of the site in a natural undisturbed state.
- ✓ Place utilities underground and adjacent to roadways (i.e. within the right of way).
- ✓ Avoid placing development on slopes greater than 25%, unless the outcome is biologically superior (e.g. avoids impacts to sensitive biological resources). See the Hillside Management Area Ordinance (Chapter 22.104) for hillside design requirements in areas with 25% or greater natural slopes.
- ✓ Locate development away from wildlife corridors and use only wildlife permeable fencing outside of development to allow wildlife to move easily through the undeveloped portion of the project site.
- ✓ Locate development away from the most sensitive natural resources and protect those resources and contiguous natural areas as open space.
- ✓ Do not alter, grade, build upon, fill or divert water from any wetland area. Maintain minimum buffers around such areas, as specified in the SEA Development Standards.
- ✓ Do not alter, grade, fill or build within any part of the 100-year flood plain of a river or stream.
- ✓ Avoid removal of native trees, such as oak, walnut, sycamore, juniper, and Joshua trees (see SEA Protected Tree List in Appendix A).
- ✓ Landscape with plant materials that are locally indigenous and drought-tolerant. Do not landscape with invasive species listed in the Invasive Species List (Appendix C) or listed as invasive by California Invasive Plant Council.
- ✓ Direct outdoor lighting downward and away from adjacent natural areas.
- ✓ Use non-glare/non-reflective glass and/or other methods for preventing collisions of birds with window glass.

SEA RESOURCES

The SEA Ordinance defines *SEA Resources* as "the biological and physical natural resources that contribute to and support the biodiversity of SEAs and the ecosystem services they provide." In Chapter 1, the concept of biodiversity and its importance to maintaining the character of LA County was introduced. Biodiversity, at its core, is simply the variety of life that occurs in a particular place. While biodiversity speaks to the diversity of living organisms, it is the combination of those living organisms (plants, animals, fungi, microbes, etc.) and the physical natural resources (non-living resources such as water, rocks, minerals, and air) that make up an *ecosystem*.

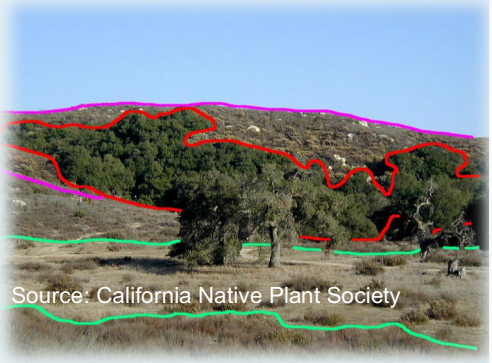
Many interactions take place within an ecosystem between the living organisms and their physical environment, and these chemical, biological, geochemical, or physical interactions provide the ecosystem with the raw materials it needs to continue to thrive. Many of these interactions, or *ecosystem functions*, also provide direct and indirect benefits to people. Such benefits are known as *ecosystem services*, and include things like clean air and water, fertile soils, pollination, raw materials in the form of foods, biofuels, and medicinal resources, protection from natural disasters like floods and droughts, and regulation of temperatures. There are also many social and cultural services provided by healthy, functioning ecosystems, such as scenic views and opportunities for recreation, tourism, culture, art, and design. The continued ability of our local ecosystems to provide the ecosystem services and biodiversity that we enjoy in LA County today depends in large part on ensuring adequate protections for the resources themselves, many of which are concentrated within and adjacent to SEAS.

To that end, the SEA Ordinance divides SEA Resources into five categories, with each category afforded a certain level of protection consistent with its relative abundance in the County and sensitivity to disturbance. Categories 1 through 3 are referred to in the Ordinance as Priority Biological Resources. SEA Resources are divided into categories based on the following factors:

- sensitivity to impacts of development;
- relative scarcity within the state, County, or SEA;

NATURAL COMMUNITIES

A natural community is a collection of plants that occur together in a repeating pattern across a landscape. Without even knowing the names of the plants, one can start to detect patterns based solely on their size, shape, and spacing.



By grouping vegetation together in this way, they can be described, mapped, and ranked based on sensitivity and rarity. Mapping natural communities can be used to:

- ✓ predict available habitat for plant and animal species,
- ✓ depict patterns of biodiversity,
- ✓ help predict fuel loads and fire risk, and
- ✓ track and evaluate changes over time.

Examining and protecting natural communities shifts the conservation emphasis from a single-species approach to a landscape approach that encompasses groups of species and ecosystems, as well the interplay between those groups.

This approach recognizes that species never occur in isolation, but rather exist as members of a community of interdependent plants and animals.

- role in supporting populations of species and ecosystem services;
- and ability to recover from disturbance (resilience).

The SEA Ordinance relies largely on existing standards, requirements, and thresholds already in use by state, federal, and county resource agencies and authorities. Each category is described in more detail below. The SEA Ordinance includes specific Development Standards for SEA Resource Categories 1 through 4 (TABLE 2). Other area-wide and land use specific Development Standards are intended to preserve valuable elements of Category 5 SEA Resources.

TABLE 2. ALLOWABLE DISTURBANCE & PRESERVATION FOR SEA RESOURCES BY CATEGORIES

SEA RESOURCE CATEGORY:	DISTURBANCE ALLOWED:	OPEN SPACE PRESERVATION RATIO:
1	none	N/A (requires SEA CUP)
2	≤ 500 sq ft	2:1
3	≤ 500 sq ft	1:1
	> 500 sq ft	2:1
4	≤ 5,000 sq ft	none
	> 5,000 sq ft	1:1
5	any amount	none

* The total building site area may be no larger than 20,000 square feet.

SEA RESOURCE CATEGORY 1

No amount of disturbance[10] to resources in this category is allowed under a Ministerial SEA Review, as they are of the highest sensitivity and vulnerability in the region. Most of these resources also have state or federal regulations in place to protect them. Development should always strive to avoid resources in this category. Any development proposing impacts to Category 1 SEA Resources will require a SEA CUP with SEATAC review and a public hearing and will likely also trigger permitting requirements from other state or federal agencies (e.g. USFWS, Army Corps, CDFW, etc.). Mitigation for impacts to these resources is sometimes not a viable option because they are so rare, difficult to detect, or have habitats that are next to impossible to re-create. SEA Resources that fall into this category include the following:

ENDANGERED, THREATENED, OR RARE PLANTS AND ANIMALS:

The U.S. Fish and Wildlife Service (USFWS) administers the Federal Endangered Species Act (FESA), which provides a process for listing species as endangered and threatened, and provides guidance for protecting those listed species and the habitats upon which they depend. The California Endangered Species Act (CESA) prohibits the take of any fish, wildlife, or plant species designated by the California Fish and Game Commission as endangered, threatened, or candidate species. The California Department of Fish and Wildlife (CDFW) oversees the species protected by CESA. Both the federal and state regulations prohibit the take of any listed endangered or threatened plant or animal species, including the destruction of a listed species' habitat. All species protected under

Figure 11. The arroyo toad (*Anaxyrus californicus*) is both federally and state listed as an endangered species. Photo by Chris Brown, USGS.

[10] Disturbance includes clearing or thinning of vegetation for fuel modification and fire protection purposes.

FESA or CESA are Category 1 SEA Resources. For the purposes of the SEA Program, both the protected species and their occupied habitat are Category 1 SEA Resources.

Figure 12. Braunton's milkvetch (*Astragalus brauntonii*) is a perennial herb listed as federally endangered and CNPS rare plant rank 1B.1. Photo by Benjamin Smith 2010, from CalPhotos.

CALIFORNIA RARE PLANT RANKS 1A OR B, 2A OR B, AND 3:

CDFW works in collaboration with the California Native Plant Society (CNPS) and with botanical experts to maintain an inventory of California's sensitive plant species. This inventory consists of a ranking system known as the California Rare Plant Ranks (CRPR), which officially defines and categorizes the level of rarity of California's plants based on known information about the rarity, geographic range, and ecological requirements of each species. All the plants ranked 1A, 1B, 2A, 2B, and 3 meet the definitions of the CESA, are eligible for state listing, and are Category 1 SEA Resources. More detailed information about the CNPS Rare Plant Program can be found online at http://www.cnps.org/cnps/rareplants/.

Figure 13. Dudleya greenei-Dudleya spp. Succulent Scrub Herbaceous Alliance is a G1/S1 natural community that is found on the Channel Islands. Photo by Nicole Swabey, NPS.

CRITICALLY IMPERILED NATURAL COMMUNITIES[11] (G1/S1):

Natural communities with a global rank of G1 or a state rank of S1 are considered to be "critically imperiled". Critically imperiled natural communities are at very high risk of extinction due to extreme rarity (often with only six or fewer populations remaining worldwide or statewide, and/or up to 1,000 hectares remaining), very steep declines, and other factors. Since they have extremely limited distribution statewide and globally and are highly vulnerable to the impacts of development projects, no amount of disturbance to G1/S1 natural communities is allowed without a SEA CUP.

Figure 14. Wetlands are diverse ecosystems that provide vital services and habitat for broad range of species. Photo by City of Los Angeles Department of Cultural Affairs.

WATER RESOURCES:

Water resources are highly vulnerable and complex hydrologic and biotic systems that are capable of supporting a vast range of important ecosystem functions. The Conservation and Natural Resources Element (Chapter 9) of the General Plan 2035 characterizes local water resources "an invaluable resource" and recognizes that effective management and preservation of water resources are vital to preserving a high quality of life for LA County's residents and sustaining the functioning of watersheds and the natural environment.

[11] Since 1999, CDFW has classified and mapped natural communities throughout the state of California. One purpose of this classification is to assist in determining the level of rarity and imperilment of natural communities throughout the state. CDFW's current list rates 350 vegetation alliances and over 2,100 associations with a G (global) and S (state) rank according to their degree of imperilment following NatureServe's Heritage Methodology (www.natureserve.org/conservation-tools/conservation-status-assessment).

Since water resources are so sensitive to changes that occur along their boundaries and within their watersheds, the SEA Ordinance goes beyond prohibiting development within their boundaries, to requiring additional buffers between proposed developments and the water resources. See section "B. Water Resources" below for more details on required buffers.

SEA Resource Category 2

This category includes species and natural communities that are rare, sensitive, or highly important to maintaining the biodiversity and ecosystem services within SEAs. Only minimal amounts of disturbance may be allowed to these resources, as discussed below.

Figure 15. Desert needlegrass grassland (*Achnotherum speciosum* Herbaceous Alliance) is a S2 natural community. Photo by Todd Keeler-Wolf.

IMPERILED NATURAL COMMUNITIES (G2/S2):

Natural communities with a global rank of G2 or a state rank of S2 are considered "imperiled". Imperiled natural communities are at high risk of extinction or elimination due to very restricted range, very few populations (6-20 viable occurrences remaining worldwide or statewide, and/or from 1,000 to 2,000 hectares remaining), steep declines, or other factors.

The SEA Ordinance does not allow more than 500 square feet of cumulative disturbance to SEA Resource Category 2. Additionally, any proposed impacts to SEA Resource Category 2 up to 500 square feet must be compensated for through preservation of an area at least twice the size of that being disturbed. Preserved areas must be protected in perpetuity and maintained in a natural condition. All other relevant Development Standards must also be met, including the required setbacks from native trees occurring within the area to be disturbed.

To meet the requirements of the Development Standard, the area to be preserved must be:

1. the same type of SEA Resource(s) as that being disturbed,
2. located entirely outside of the development footprint (including fuel modification zones) of the proposed project,
3. located outside of any existing brush clearance zones of neighboring structures,
4. at least two-times the size of the area disturbed[12], and
5. recorded through a permanent on-site deed restriction or covenant (see Chapter 8).

[12] While applicants are encouraged to go beyond the minimum requirement, particularly when sensitive resources are present, and preserve as much of the sensitive resource as feasible, the Department will not require more than 2 to 1 preservation through a Ministerial SEA Review.

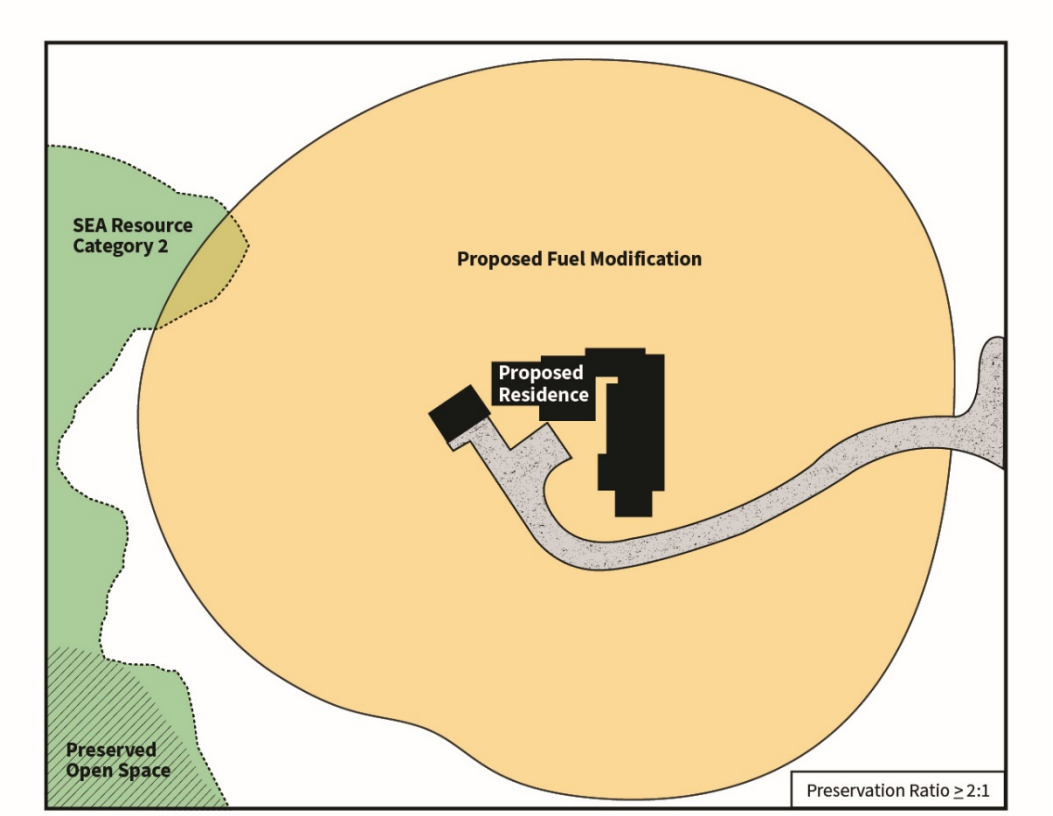


Figure 16. Up to 500 square feet of disturbance to SEA Resource Category 2 is allowed, provided that the applicant preserve at least twice that amount of the same type of habitat on site, through an open space deed restriction or covenant.

Figure 17. The Western Burrowing Owl *(Athene cunicularia hypugea)* is a CA Species of Special Concern. Photo by Andy Long, Audubon Photography Awards.

SPECIES OF SPECIAL CONCERN:

CDFW uses this status for rare and sensitive animals not listed under FESA or CESA, but which nonetheless are declining at a rate that could result in listing, as well as for animals that historically occurred in low numbers that have known threats to their continued presence. More information on Species of Special Concern can be found on the CDFW website at www.wildlife.ca.gov/Conservation/SSC. For the purposes of the SEA Program, both Species of Special Concern and their occupied habitat are Category 2 SEA Resources.

Since animals move and generally flee or hide when human activity is detected, determination of an animal species' presence cannot rely entirely on direct sightings of the species. Therefore, even if the animal itself has not been directly observed on the project site, its presence or use of an area may be determined by the presence of scat, tracks, and special habitat features such as nests, dens, burrows, and roosts. In the case that a Species of Special Concern is observed within a heavily disturbed or paved area that does not constitute appropriate habitat, the biologist should look to adjacent natural habitat areas to identify nearby natural habitat that may support the species. The disturbed or paved area should not be considered SEA

Resource Category 2 simply because a species of special concern is seen crossing through the area. However, such an observation is likely to result in identification of occupied habitat nearby. The SEA Ordinance prohibits development that results in abandonment or failure of any habitat features that have been identified by a qualified biologist as belonging to a special status species. If a special habitat feature indicates presence of a species of special concern, the consulting biologist should confer with the County Biologist and CDFW to determine the appropriate buffer to maintain between the habitat feature and the proposed development, and this buffer must be shown on the BCM.

SEA Resource Category 3

This category includes natural communities considered by CDFW to be likely to become imperiled unless the circumstances that are threatening their survival improve. Resources in this category include the following:

Figure 19. Chamise-white sage chaparral (*Adenostoma fasciculatum - Salvia apiana* Shrubland Alliance) is a G3/S3 ranked natural community. Photo by Julie M. Evens.

VULNERABLE NATURAL COMMUNITIES (G3/S3):

Natural communities with a global rank of g3 or a state rank of s3 are considered "vulnerable". Vulnerable communities are at moderate risk of extinction or elimination due to restricted range, relatively few populations (21-80 viable occurrences remaining worldwide or statewide and/or from 2,000 to 50,000 hectares remaining), recent and widespread declines, or other factors.

Figure 18. Joshua Tree Woodland is a Sensitive Local Native Resource in the SEAs in which it occurs (see Appendix B). Photo by Enaid Silverwolf, 2017.

SENSITIVE LOCAL NATIVE RESOURCES:

Some species and natural communities are much rarer or more significant on a local scale than they are on a global, state, or even regional scale. For this reason, the Department maintains a list of native resources that are rare or significant within the County or specific SEAs (Appendix B). Any species included on this list will be treated as a Category 2 resource within the region(s) indicated on the list, regardless of its state and global rankings.)

Figure 20. The County regards oak woodlands as being essential to the maintenance of biodiversity and ecosystem services. Photo by James Keeney.

OAK WOODLANDS:

LA County has long prioritized the protection of oaks, starting with enacting the Oak Tree Ordinance in 1982, and subsequently through the adoption of the LA County Oak Woodlands Conservation Management Plan in 2011. The Oak Woodlands Conservation Management Plan changed the way the Department reviews projects that occur within or near oak woodlands. The main goal of the plan is to conserve oak woodlands in perpetuity with no permanent net loss of existing woodlands. As such, although many natural communities dominated by oak trees are ranked as being less rare or sensitive in the CDFW Natural Communities list, the County regards them as essential to the maintenance of biodiversity and ecosystem services within SEAs and places them in a more protective category.

The SEA Ordinance includes provisions for two tiers of impact to SEA Resource Category 3, namely disturbances under 500 square feet and disturbances over 500 square feet.

1. Development not exceeding 500 square feet of disturbance to SEA Resource Category 3 must preserve an equal area of the same SEA Resource(s) elsewhere on the project site (1:1 preservation ratio).
2. Development that exceeds 500 square feet of impact to SEA Resource Category 3 are required to preserve an area of the same SEA Resource(s) at least two-times the size of that impacted (2:1 preservation ratio).

For both tiers, all other Development Standards must be met, including the maximum total building site area and required setback for native trees. Additionally, to meet the requirements of this Development Standard, the area to be preserved must:

1. consist of the same type of SEA Resource(s) as that being disturbed,
2. be located outside of the development footprint of the proposed project,
3. be located outside of any existing brush clearance zones of neighboring structures, and
4. be recorded through a permanent on-site deed restriction or covenant (see Chapter 8).

WHY ARE OAK WOODLANDS IMPORTANT TO LOS ANGELES COUNTY?

Adapted from the ***Los Angeles County Oak Woodlands Conservation Management Plan:***

Oak woodlands are much more than a collection of individual trees. Associated with those trees, are over 300 vertebrate species and more than 5,000 invertebrates, not to mention hundreds of native plant species. Entering oak woodlands, you experience the complex interconnections of the trees, plants, and animals that create a dynamic living system.

Oak woodlands provide essential ecosystem function services, at little to no cost. The canopies of oaks filter out air pollution, absorb carbon dioxide, and create islands of welcome shade and cooler temperatures. Hillsides covered with oaks provide erosion control through roots that hold the soil and foliage that diffuses rainfall, allowing it to percolate into the ground. Stream banks shaded by oaks slow down floodwaters and help filter out water pollutants.

Oak woodlands provide extensive recreational opportunities that are easily accessed by the huge urban population of Los Angeles County. The health benefits provided by access to trails that wind through the oaks are immeasurable. For many people, a walk through the oaks is a welcome stress relief. Real estate prices for homes in or near oak woodlands are consistently higher than those without oaks or other natural spaces.

Oak woodlands are an iconic part of the visual landscape of Los Angeles County. The daily commute of millions is enhanced by views of oak studded hillsides along crowded freeways. Oaks and humans have a long history of inter-dependence. While few people today rely on acorns as a dietary staple, living in and among oak woodlands is clearly still important to many of us.

SEA RESOURCE CATEGORY 4

This category represents the more common natural communities that occur within the County, as well as certain plant species with limited distribution within the state.

Figure 21. Redshank chaparral (*Adenostoma sparsifolium* Shrubland Alliance) is a G4/S4 ranked natural community. Photo by Julie M. Evens.

APPARENTLY SECURE NATURAL COMMUNITIES (G4/S4):

Natural communities with a global rank of G4 or a state rank of S4 are considered to be “apparently secure” within their range. Apparently secure communities may be uncommon within a given geographic range, but they are not rare on a larger scale. Some cause for long-term concern for these communities due to declines and other factors may be warranted regionally. G4/S4 natural communities are defined as having from 81-300 viable occurrences worldwide or statewide, and/or more than 50,000 to 200,000 hectares remaining.

Figure 22. Chamise chaparral (*Adenostoma fasciculatum* Shrubland Alliance) is a G5/S5 ranked natural community. Photo by Todd Keeler-Wolf.

SECURE NATURAL COMMUNITIES (G5/S5):

Natural communities with a global rank of G5 or a state rank of S5 are considered to be "secure" within their range. These are the most common, widespread, and abundant natural communities, and are demonstrably secure due to worldwide and statewide abundance.

The SEA Ordinance allows for up to 5,000 square feet of disturbance to these natural communities without requiring preservation. However, projects proposing to disturb more than 5,000 square feet are required to preserve an area at least equal in size to that which is being disturbed.

To meet the requirements of the Development Standard for disturbance over 5,000 square feet, the area to be preserved must be:

1. the same type(s) of natural community as that being disturbed,
2. located outside of the development footprint of the proposed project,
3. located outside of any existing fuel modification/brush clearance zones of neighboring structures,
4. equal or larger in size to the area of the disturbed natural community, and
5. recorded through a permanent on-site deed restriction or covenant (see Chapter 8 for natural open space preservation requirements).

Figure 24. Plummer's mariposa lily (*Calochortus plummerae*) is a CRPR 4 perennial herb. Photo by Jen Mongolo.

Figure 23. Southern California Black Walnut (*Juglans californica)* is a CRPR 4 deciduous tree. Photo by Michael O'Brien.

CALIFORNIA RARE PLANT RANK 4:

RPR4 plants, as identified by the CNPS Rare Plant Program (available online at www.cnps.org/cnps/rareplants), are "watch list" plants. These plants are of limited distribution and may be locally significant. They warrant regular monitoring and may be transferred to a more protective rank by CNPS should the degree of endangerment or rarity change. This category includes both individual woody plants (for example, tree or shrub species) and habitat containing annual or herbaceous plants.

Similar to Category 4 Natural Communities, the SEA Ordinance allows for up to 5,000 square feet of disturbance to habitat containing RPR4 annual or herbaceous plants without natural open space preservation. It also allows for disturbance of to up to 10 individual woody plants ranked RPR4 without preservation. If disturbance to more than 5,000 square feet of occupied habitat of annual or herbaceous species or disturbance to 10 individuals of woody species is proposed, the applicant must be able to preserve an area containing an equal amount of habitat for the species (or an equal number of individuals if woody species), elsewhere on the property.

SEA Resource Category 5

All SEA lands and resources that are not included in one of the categories listed above but that nonetheless contribute to the biodiversity, ecosystem services, wildlife corridors, migration pathways, and preservation of the SEAs are included in this category. Examples of such resources include vegetation dominated by non-native species, agricultural fields, hedges, early successional vegetation that has yet to form into a distinct natural community, cleared or disturbed areas, and non-native trees and shrubs. Although disturbed, such areas still contribute to the preservation of SEAs and often play a vital role in wildlife movement (see Appendix E) and the protection of SEA Resources listed above in Categories 1 through 4.

Since SEA Resource Category 5 has already been impacted in some way by development, it is not considered to be as sensitive to additional impacts of development as natural habitat areas. For this reason, the SEA Ordinance does not include a disturbance threshold or preservation ratio for impacts to this Category. However, the value of biotic resources, connectivity, and buffers provided by SEA Resource Category 5 will be taken into consideration during discretionary review, as these areas may play a role in meeting the SEA Findings.

SEA PROTECTED TREES

Subsection 22.102.090(B) establishes minimum setbacks for SEA Protected Trees (listed in Appendix A). This setback, or buffer, is known as the Tree Protected Zone ("TPZ"), and it extends a minimum of five feet out from the dripline of a protected tree or 15 feet from the trunk, whichever distance is greater.

ENCROACHMENTS

Any intrusion, disturbance or construction activity occurring within the protected zone of a SEA Protected Tree is considered an encroachment. Development is limited to the following encroachments:

- ✓ a maximum of four SEA Protected Trees may have encroachments; and
- ✓ for those trees impacted, development must not encroach more than 10 percent into their TPZ.

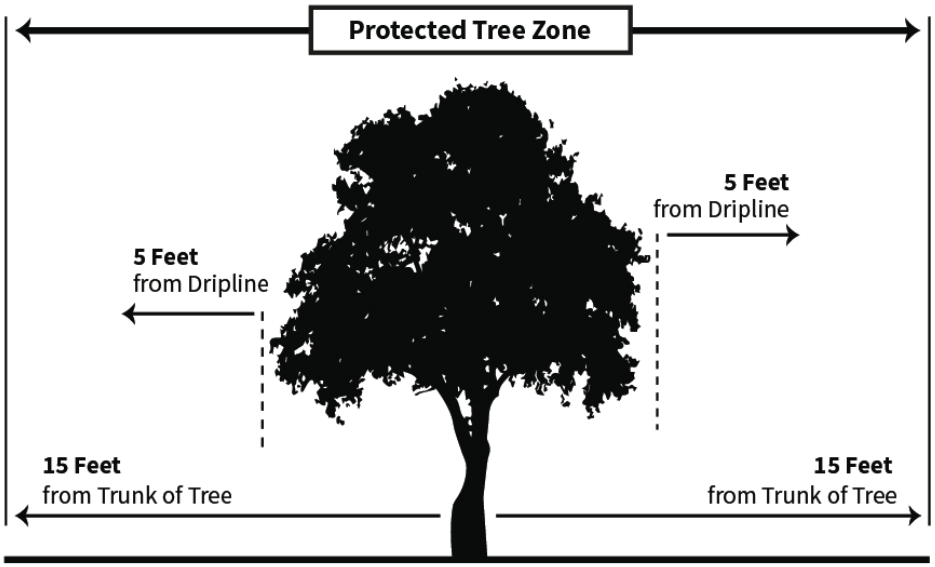


Figure 25. Development must be set back a minimum of 5-feet from the dripline or 15-feet from the trunk of a SEA Protected Tree, whichever distance is greater.

REMOVALS

Development may remove one SEA Protected Tree, provided it is not designated as a Heritage Tree. If the tree to be removed is an oak tree protected by the County Oak Tree Ordinance (all trees of the genus *Quercus* greater than eight inches DBH or with two trunks totaling 12-inches DBH), an Oak Tree Permit will still be required.

See Chapter 3 for more information on SEA Protected Trees and permitting requirements.

WATER RESOURCES

No direct disturbance to our County's limited water resources is allowed within SEAs. Furthermore, since water resources are highly vulnerable to changes that occur within their watersheds, and especially to activities that occur around their edges, all development (as defined in the SEA Ordinance), including fuel modification, is required to be set back a minimum distance from water resources identified in the vicinity of the project, as shown in **TABLE 3** below.

While the Ordinance requires minimum setbacks, applicants are encouraged to plan their developments as far from water resources as possible (beyond required setbacks) to ensure that the development does not have adverse inhibitory effects on wildlife using the water sources. The year-round water supplied by marshes, seeps, and springs is of the utmost importance for wildlife, and intermittent and ephemeral waters play a vital role in the lifecycles of countless indigenous plants and animals, as well as migrating birds. It is vital that access to and use of these resources remain unfettered by further human disturbance. Human uses, such as stables and animal keeping, may have adverse inhibitory effects on the wildlife using the water sources.

In the SEA Program, the term water resource is used to identify all forms of surface water protected by the SEA Ordinance and may differ from the definitions used by other agencies. The various types of water resources referenced in the SEA Ordinance include lakes, reservoirs, ponds, rivers, streams, marshes, springs, vernal pools, and playas (see Glossary for definitions of each type of water resource). For the purpose of the SEA Ordinance, all water resources within SEAs are protected, even in instances where the resource was initially created artificially by human activities. Similarly, ephemeral and intermittent water resources are protected in equal measure to perennial water resources.

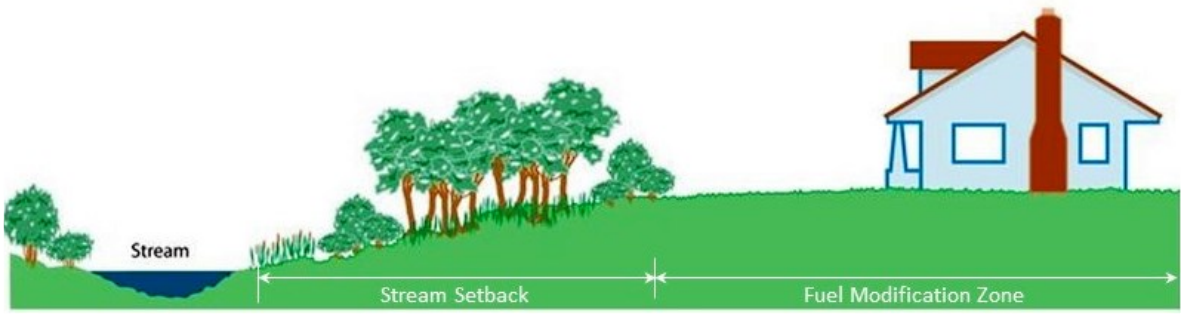


Figure 26. Fuel modification and brush clearance required by the Fire Department or Agricultural Commission for fire protection is considered development within SEAs, and therefore must be located entirely outside of required water resource setbacks.

There are other state and federal laws and regulations governing the use of and impacts to water resources, such as the Clean Water Act, the Lake and Streambed Alteration Program, and the Endangered Species Act (in the case of habitat for listed species), to name a few. Applicants should contact all appropriate resource management agencies (e.g. US Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), USFWS, and CDFW) to determine what additional permits may be needed. In general, if a development meets the required setbacks from water resources, the need for additional permits is unlikely. If a development is not able to meet setbacks from water resources, a jurisdictional waters delineation may be needed to determine if proposed activities fall within the jurisdiction of any such agencies. The applicant should work directly with the appropriate agency to obtain necessary permits.

TABLE 3. REQUIRED SETBACKS FOR WATER RESOURCES IN SEAS.

WATER RESOURCE:	SIZE	REQUIRED SETBACK*	MEASURED FROM**
Lakes, reservoirs, ponds	Any Size	150 feet or the watershed boundary, whichever is greater	High water mark
Marshes, seeps, springs	<0.5 acre	100 ft	Edge of saturated soil
	0.5 – 1 acre	150 ft	
	>1 acre	300 ft	
Vernal pools, playas	Any Size	150 ft or the watershed boundary, whichever is greater	Maximum pool extent
Rivers and streams	<50 ft wide during or immediately following a 10-yr storm	100 ft	Outside edge of riparian vegetation (i.e. dripline) on either side of the active channel. If riparian vegetation is absent or sparse, use bed and bank of the active channel inclusive of any braided channel conditions.
	50-100 ft wide during or immediately following a 10-yr storm	150 ft	
	>100 ft wide during or immediately following a 10-yr storm	300 ft	

* All setbacks should be measured horizontally, in plan view, since they are intended to serve as spatial buffers. For SEA CUPs, a lesser setback may be considered if topography and/or other physical features in combination with best management practices are determined to provide adequate screening and buffering.

**All wetland delineations should follow the methodology described in the US Fish and Wildlife Service Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, 1979). The Mapping Episodic Stream Activity (MESA) protocol (Vyverberg and Brady, 2013) developed by CDFW and the California Energy Commission should be employed to accurately document episodic streams when water is absent.

OTHER DEVELOPMENT STANDARDS

The following Development Standards apply to all projects within SEAs. The primary purpose of these Development Standards is to ensure the preservation of natural habitat and wildlife movement opportunities within SEAs.

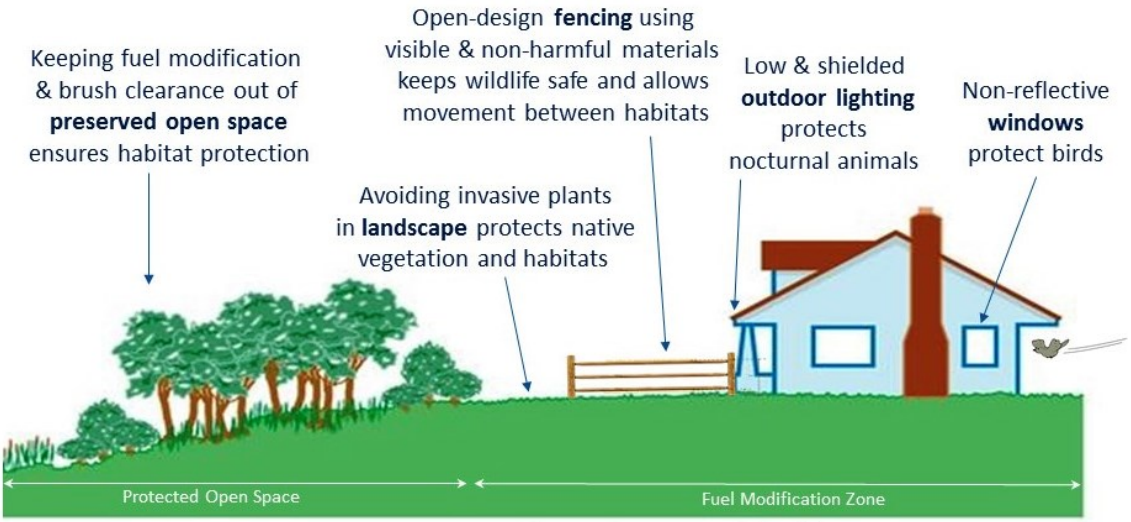


Figure 27. Area-wide Development Standards focus on ensuring the preservation of natural habitat and wildlife movement opportunities.

IMPERMEABLE FENCING, WALLS OR ENCLOSURES

Fencing within SEAs is generally discouraged, as fences can create hazards and barriers for wildlife movement, seasonal migrations, and access to food and water. When used, fencing should be designed and sited in such a way as to not restrict wildlife movement within the SEA.

Wildlife impermeable fencing is fencing that prevents or creates a barrier for the passage of wildlife from one side to the other. In SEAs, impermeable fencing, walls, and enclosures are only allowed within the development footprint, and should only be used around the immediate vicinity of residences and associated yards, for the control and safety of domestic animals[13], and where public health and safety dictates their use. Impermeable fencing, walls, or enclosures should never be constructed around areas that contain natural habitat, except where temporary exclusion fencing is needed to keep wildlife away from habitat restoration areas while they become established.

A FENCE MAY BE PROBLEMATIC FOR WILDLIFE IF…

- ✓ it is too high to jump over
- ✓ it is too low to crawl under
- ✓ it is too wide and creates a three-dimensional obstacle
- ✓ there are loose or broken wires
- ✓ its wires or boards are spaced too closely together
- ✓ it has elements that can impale or snag a leaping or flying animal
- ✓ it is not readily visible to running animals or flying birds

[13] Within the urban-wildland interface, it is strongly recommended that livestock and domesticated animals are provided with appropriate fencing to provide protection against predation by mountain lions and other predatory wildlife.

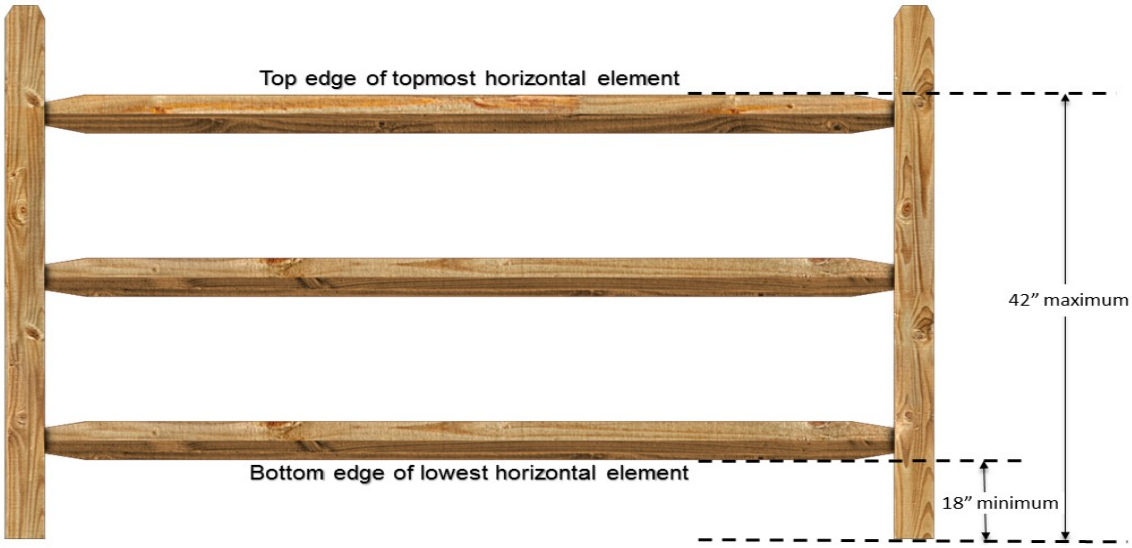


Figure 28. Wildlife permeable fencing must be of open design and constructed of materials that are readily visible to wildlife. Height of top rail may be no more than 42-inches above ground-level, and the bottom rail must be at least 18-inches above ground-level to permit movement of wildlife both under and over the fence.

Permeable Fencing

Wildlife permeable fencing may be utilized elsewhere on the property to delineate property lines or to section off development features. A wildlife permeable fence is one that incorporates, at minimum, the following principles:

- Wildlife should be able to easily see all fence posts and horizontal elements. Materials that are visible to wildlife include wooden rails, steel pipes, vinyl rails, PVC pipes, recycled plastic rails, coated wires, or smooth wires covered with PVC or clearly marked with flagging.
- The top edge of the uppermost horizontal elements shall be no more than 42 inches above ground level to allow wildlife to jump over the fence.
- The bottom edge of the lowest horizontal elements shall be no lower than 18 inches above ground level to allow wildlife to pass under the fence.

Fencing Materials

Never construct or top fences, gates, and walls with spikes, glass, razors, nets, or other such materials that may be harmful to wildlife. To prevent the entrapment of birds, fence and signposts should not be hollow at the top or have unfilled bolt holes. Wildlife friendly fences are those constructed of materials that are

Alternatives to Fencing

Since fences can pose serious problems for wildlife in ways that we do not always see or anticipate, alternative design features that could serve the same purpose should be considered. Barriers or designs using natural materials are often very effective at preventing access or providing privacy, while simultaneously providing a more natural appearance and minimizing maintenance requirements. Closely spaced natural vegetation (e.g. hedges) can serve as a privacy fence, for example, or a row of trees or boulders could serve as boundary markers.

readily visible to wildlife, preventing unfortunate accidents such as collisions, entanglement, entrapment, or impaling of unsuspecting animals. Barbed wire may be used on the interior horizontal elements of the fence, but may not be used as the top- or bottom-most elements.

WINDOW REFLECTIVITY

Windows can be a big problem for birds. A 2014 study published by the American Ornithological Society found that between 365 and 988 million birds are killed each year in the United States by building collisions[14]. Reflective windows, sometimes in combination with artificial outdoor lighting, are the major cause of such collisions. The vast majority of structures that birds collide with are residences and low-rise buildings. A single home may kill a dozen or more birds each year without the owner being aware. Birds typically collide with windows because they see the reflection of surrounding habitat and fly full-speed into it, or they attempt to fly past reflected buildings or through reflected passageways, with fatal results. Even if the initial impact does not kill the bird immediately, it may hemorrhage after flying away from the site or be left injured and vulnerable to predation.

The Ordinance requires that all windows in SEAs be comprised of non-glare/non-reflective glass or utilize methods to achieve non-reflectivity. Additional methods for preventing collisions of birds with window glass include:

- incorporating elements in the building design that preclude collisions without completely obscuring vision, for example the use of decorative facades, recessed windows, shutters, grilles, or exterior shades;
- using UV Patterned, Opaque, or Translucent Glass;
- applying patterns on glass (particularly on the external surface) to block glass reflections, acting like a screen;
- applying external window films or decals; and
- avoiding plantings in front of glass windows.

OUTDOOR LIGHTING

Outdoor lighting can be very disruptive to natural animal behavior. According to a research article by Travis Longcore and Catherine Rich, “light pollution has demonstrable effects on the behavioral and population ecology of organisms in natural settings. As a whole, these effects derive from changes in orientation, disorientation, or misorientation, and attraction or repulsion from the altered light environment, which in turn may affect foraging, reproduction, migration, and communication.”[15] For example, lighting the night sky can disrupt bird migration and nocturnal foraging by bats and birds, while lighting terrestrial habitat areas can disturb foraging patterns of other nocturnal animals.

Chapter 22.80 (Rural Outdoor Lighting District) of the County Code is a supplemental zoning district that encompasses rural areas of LA County. The Rural Outdoor Lighting District “promotes and maintains dark skies for the health and enjoyment of individuals and wildlife.” The majority of SEAs are already included in the Rural Outdoor Lighting District, and the current SEA Ordinance essentially expands the district to

[14] Loss, Scott R., Tom Will, Sara S. Loss ,and Peter P. Marra. 2014. Bird–building collisions in the United States: Estimates of annual mortality and species vulnerability. The Condor 116(1):8-23. doi.org/10.1650/CONDOR-13-090.1
[15] Longcore, T. and Rich, C. (2004), Ecological light pollution. Frontiers in Ecology and the Environment, 2: 191-198. doi:10.1890/1540-9295(2004)002[0191:ELP]2.0.CO;2

include any parts of SEAs that were not originally covered by the supplemental district, by requiring those areas to abide by the same standards. Further, the Ordinance prohibits outdoor lights to be directed upwards into the night sky or to be directed onto natural habitat.

Applicants can meet this Development Standard and protect habitat and dark skies by following these general guidelines for outside lighting:

KEEP IT LOW

Mount light fixtures as low as possible to minimize light trespass (see Part 9 of Chapter 22.44 for specific height requirements by use).

Use the lowest amount of light needed for the task. Consider using motion sensors to avoid steady-burning lights, or timers to ensure that lights aren't left on longer than necessary.

KEEP IT SHIELDED

Use fixtures that are shielded so that the bulbs and/or glowing lenses are not visible, minimizing light trespass into natural habitat areas or skywards.

KEEP IT WARM

Use only warm light sources for outdoor lighting. Blue light is now known to brighten the night sky more than any other color of light, so minimizing the amount of blue light emitted is important. Exposure to blue light at night has been shown to harm human health and endanger wildlife. Warm (or subdued) light sources recommended for use outdoors include LPS, HPS and low-color-temperature LEDs.

Per Section 22.44.530, the following types of outdoor lighting are prohibited: drop-down lenses, mercury vapor lights, ultraviolet lights, and searchlights, laser lights, or other outdoor lighting that flashes, blinks, alternates, or moves.

Natural Open Space Buffer

In order to minimize edge effects and reduce the impacts of fuel modification, brush clearance, or other vegetation disturbing activities within protected natural open space (i.e. state or county park, conservation easement, open space deed restriction, etc.), the SEA Ordinance requires that all new habitable structures be set back a minimum of 200 feet from the boundary of any such lands. A 200-foot buffer is the standard distance required by the LA County Fire Department and Agricultural Commission for fuel modifiation and brush clearance to protect a habitable structure. If the Fire Department approves a fuel modification plan with non-standard distances for fuel modification zones, the setback for habitable structures from natural open space should be based on those approved in the Fire Department approved fuel modification plan. Department Staff can assist in identifying protected natural open space in the project vicinity.

Additionally, since dedication of natural open space will be a requirement for many projects within SEAs, it is important to remember that this requirement will also apply to those proposed natural open space areas. Any natural open space proposed for dedication in association with the development must be located at least 200-feet from any existing or proposed structure.

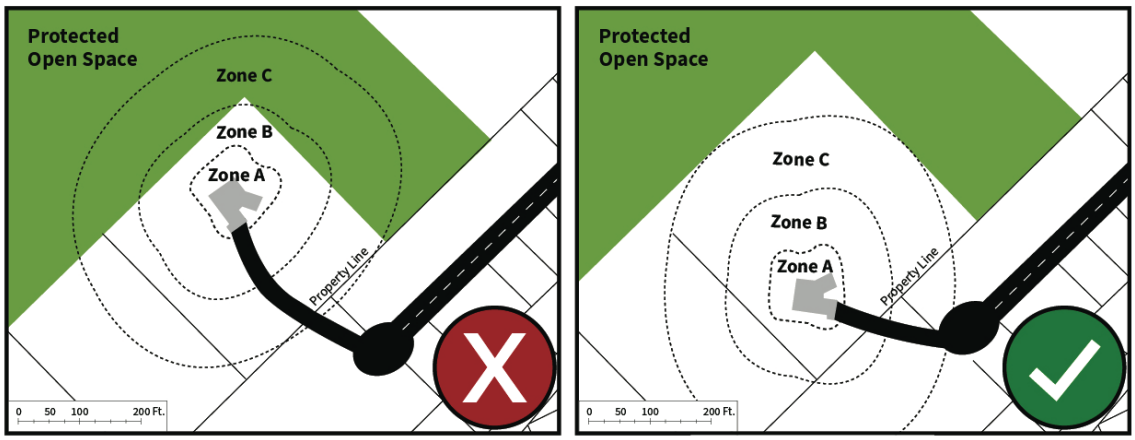


Figure 29. All new habitable structures must be set back a minimum of 200 feet from the boundary of any preserved natural open space.

LANDSCAPING AND FUEL MODIFICATION

Any development requiring new landscaping and/or fuel modification will need to submit landscape plans. Landscape plans will be reviewed by the Case Planner and County Biologist for compliance with the Development Standards, and they may also require review by the Fire Department for approval along with the Fuel Modification Plan.

LANDSCAPE & FUEL MODIFICATION REQUIREMENTS

- Minimize removal of natural vegetation to minimize erosion and sedimentation, minimize impacts to biological and scenic resources, and reduce the need for supplemental irrigation.
- Landscape or revegetate all cut and fill slopes and other areas disturbed by construction activities.
- Fuel Modification Zones A and B may utilize a mix of locally-indigenous, drought-tolerant plant species and non-invasive, drought tolerant ornamental plants and gardens.[16] These zones require irrigation, per Fire Department regulations.
- Fuel Modification Zone C should consist exclusively of native vegetation. In order to meet Fire Department regulations, existing vegetation in this zone may need to be thinned to provide defensible space for fire suppression.
- For necessary landscaping or revegetation in Zone C or outside of fuel modification areas, use only locally-indigenous, drought-tolerant plant species that blend with the existing natural vegetation and habitats in the area. Locally-indigenous plants are adapted to the local climate and natural rainfall patterns, and have adaptations to survive diminished rainfall, so landscapes with local natives minimize irrigation needs and remain healthy during times of drought.
- In all Fuel Modification Zones, use only plant species that are consistent with Fire Department requirements.
- Check the Invasive Plant List in Appendix C to ensure that none of the plants proposed for use are invasive plants, and therefore prohibited within SEAs.

[16] Use your address to identify locally appropriate plants at Calscape.org, and find out what plant nurseries may have them available.

- Tilling and disking are not acceptable methods of vegetation removal or maintenance for fuel modification or brush clearance.

All landscaping activities occurring within SEAs should employ current best practices (such as watershed-wise landscape design and hydrozones) to the greatest extent possible, avoid unnecessary direct impacts to habitat, utilize low impact design principles, and conform to legal standards for all pesticide, herbicide, and fertilizer applications. The use of chemical fertilizers or herbicides is strongly discouraged, particularly in native plant areas; amendments such as native plant mulch should be used instead.

Invasive Plants

The SEA Ordinance prohibits the use of invasive plants within SEAs, including any horticultural plant species listed in Appendix C of this Guide and any other species that is listed as invasive by the California Invasive Plant Council (CAL-IPC). The majority of species listed in Appendix C are plants that were originally introduced to the region for horticultural purposes or erosion control that have demonstrated an ability to escape from cultivation and spread into natural ecosystems, developing self-sustaining populations and becoming dominant or disruptive to those ecosystems. Given the impacts that invasive plants can have on native species, the prevention of new introductions of invasive plants into SEAs is vital to the preservation of biodiversity and ecosystem services.

Natural Open Space

Any required natural open space preservation areas as described above must be located outside of the development footprint. The natural open space area should not include any existing or proposed driveways, streets, roads, or highways.

LAND USE SPECIFIC DEVELOPMENT STANDARDS

The following Development Standards relate to specific types of land use.

Crops

The SEA Ordinance divides crops into two categories: 1) crops as an accessory use, and 2) crops as a primary use. For both categories, use of plant species recognized in Appendix C or by the California Invasive Plant Council (CAL-IPC) as invasive are prohibited. Invasive plants are defined as plants that are not native to a region or ecosystem that, once introduced, tend to spread aggressively, disrupting native species occurring in the area, and even changing ecosystem processes such as hydrology, fire regimes, and soil chemistry.

All agricultural activities occurring within SEAs should employ current best management practices (BMPs) recognized in the industry, avoid unnecessary direct impacts to natural habitat, utilize low impact design principles, and conform to legal standards for all pesticide, herbicide, and fertilizer applications.

CROPS AS AN ACCESSORY USE

Within zoning and land use areas that permit them as an accessory use, crops may be cultivated within the required irrigated fuel modification zones of a permitted development. The irrigated fuel modification zones include zones A and B, which typically extend out to 100 feet from permitted structures. New crops proposed as a primary use outside of an irrigated fuel modification zone may require a SEA CUP, except in the Antelope Valley where they occur on previously disturbed farmland, as defined by Section 22.102.020 (see Chapter 5 for more information on this exemption).

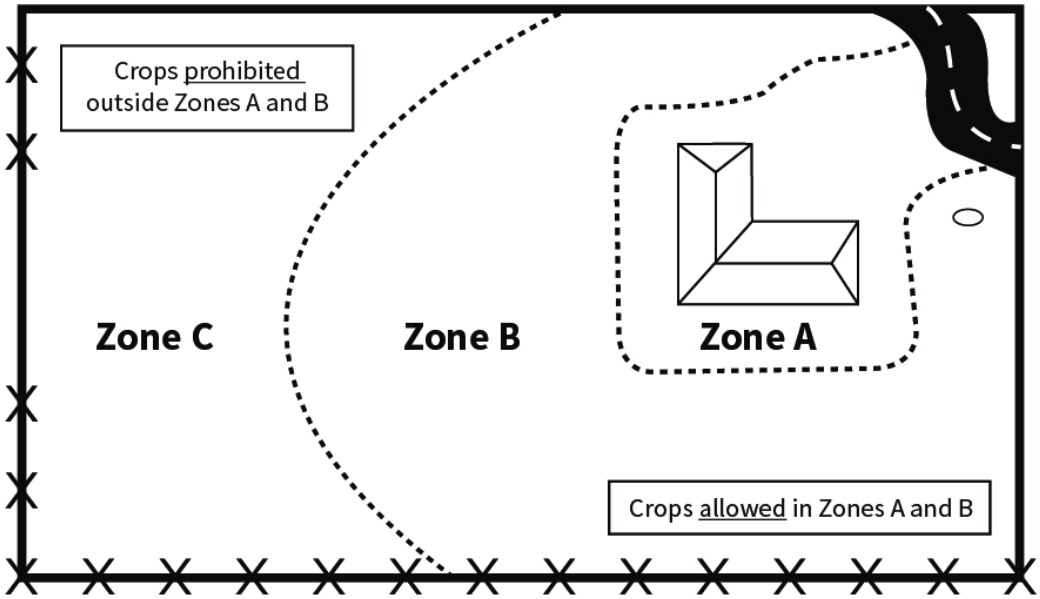


Figure 30. Crops as an accessory use must be located entirely within the irrigated fuel modification zones (Zones A & B).

CROPS AS A PRIMARY USE

Within zoning and land use areas that permit them as a primary use, crops may be cultivated within areas classified as SEA Resource Category 5, as determined by a qualified biologist in preparation of the BCM. Such areas would typically consist of previously disturbed or fallow farmland that has not recovered to a recognizable natural community and is not occupied by sensitive species. Additionally, crops may be cultivated within any irrigated fuel modification zones associated with legally established buildings on the project site.

EXPLORATORY TESTING

Exploratory testing and geotechnical investigations are often a necessary step in the project design process that provide necessary information for completing detailed engineering and architectural designs of access roads, bridges, septic systems, and structures. However, these activities can also cause a great deal of disturbance to the landscape. For this reason, exploratory testing, in and of itself, within SEAs is considered

a permited use, and requires an application for Ministerial SEA Review. All exploratory testing must comply with the following practices:

- utilize existing roads and previously graded or disturbed areas, wherever possible. If the area occurs away from existing roads and previously graded or disturbed areas, the use of track mounted vehicles is required in order to create the least amount of impact to the vegetation possible.
- If it is necessary to disturb vegetation in order to provide access for the testing equipment, plants should be selectively cut above the soil, and soil left intact so that seeds and roots that are already present in the soil may resprout and revegetate the area naturally after testing is complete.
- Exploratory testing for development that is exempt from the SEA Ordinance is also exempt from this Development Standard. However, such development is strongly encouraged to follow practices described herein to reduce impacts to SEA Resources and protect the aesthetic qualities of the property being tested.
- A restoration plan is required to be submitted along with the application for exploratory testing. This plan should meet the requirements for Restoration or Enhancement Plans detailed in Chapter 6 of this Guide, and should incorporate basic principles and best management practices detailed in Chapter 7.

EXPLORATORY TESTING STABILIZATION

Any areas disturbed by exploratory testing are likely to be vulnerable to soil erosion and invasion by nonnative, invasive plants. For this reason, the SEA Ordinance requires that immediate action be taken to stablilize soils and reestablish native vegetative cover following the disturbance event. Such actions may consist of installation of temporary erosion control measures and application of seed from locally indigenous plants. These temporary stabilization activities should take place **as soon as possible** after disturbance of soil, and must be implemented within 90 days of completing or terminating the exploratory testing.

EXPLORATORY TESTING RESTORATION

Based on the results of the exploratory testing, the project will either move forward with site plans and submittal of a land use application, or any area disturbed by exploratory testing will be required to be returned to its natural state, per the restoration plan that was approved at the time of exploratory testing application submittal. Applications submitted within one year following exploratory testing activities must include provisions to stabilize all disturbed soil within the proposed development footprint and to restore any areas outside of the proposed development footprint to their natural condition. Site plans should show exploratory testing restoration areas, and a restoration or enhancement plan should be included with the application materials.

For any disturbance to natural areas caused by exploratory testing that is not followed by a land use application within one year, as well as for applications that are subsequently withdrawn by the applicant or denied by the Commission or Board, full restoration of the disturbed area is required. See Chapter 6 of this Guide for what to include in the restoration plan and Chapter 7 for guidance on conducting habitat restoration in SEAs.

Restoration of natural areas impacted by exploratory testing that are outside of the proposed development footprint of a pending or approved land use application must begin within one year of the disturbance.

LAND DIVISIONS

Land divisions have a high degree of potential to negatively affect SEA Resources, interrupt wildlife corridors, and create habitat fragmentation. Yet a great deal of opportunity also exists for land divisions to result in long-term preservation of previously unprotected SEA Resources, wildlife corridors, and ecosystem services. Since land divisions within SEAs typically concern large areas of undeveloped land, the opportunities for both resource disturbance and resource protection are great.

The SEA Ordinance requires land division projects to focus on configurations and designs that result in the least amount of disturbance to SEA Resources and wildlife movement by requiring development to be grouped together in a single area and restricting it to 25% or less of the project site, with 75% of the project site preserved as natural open space. Development areas should be sited in locations that are overall least impactful to SEA functions and values. Previously, all proposed land divisions in SEAs needed a SEA CUP. Under the new Ordinance, a land division could potentially qualify for Ministerial SEA Review if it can be demonstrated to meet all Development Standards, though it may still be subject to other discretionary reviews by the County.

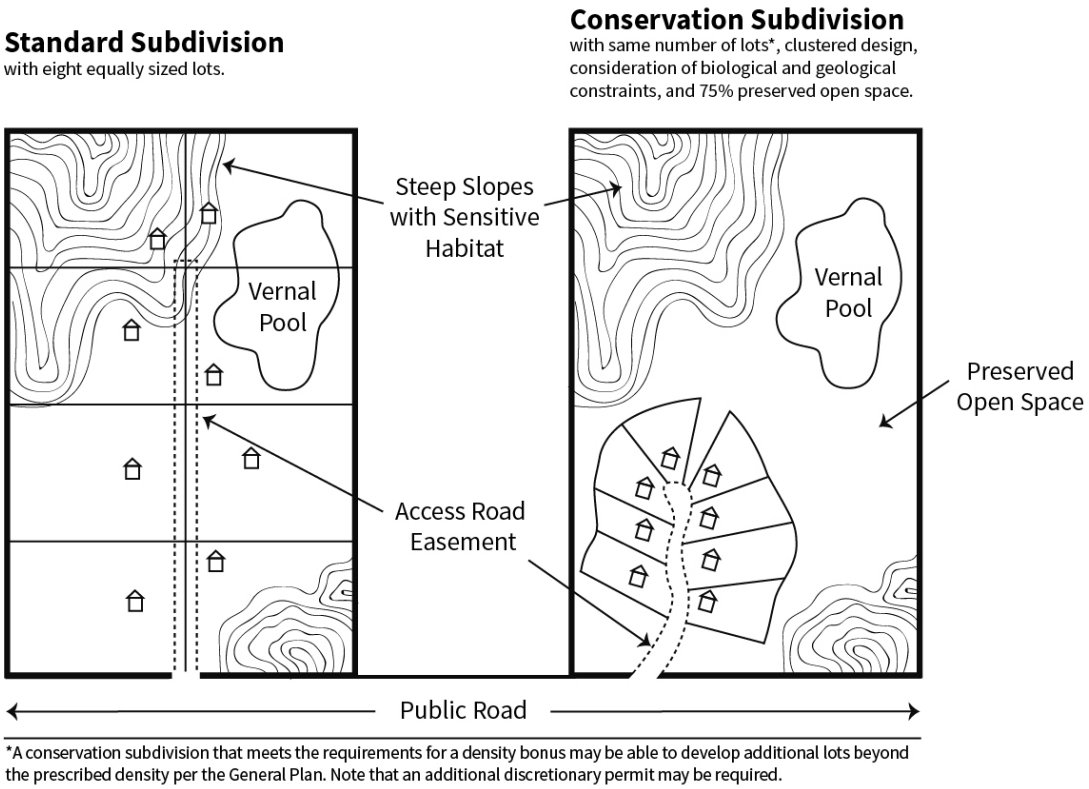


Figure 31. Land divisions shall not exceed a maximum development footprint of 25 percent of the project site (i.e. the original undivided parcels), and development areas shall be designed in one contiguous location and result in the largest, intact blocks of habitat with the lowest perimeter to area ratio. §22.102.090(E)(3)(b)

Land divisions should be designed as follows:

- ✓ With the lowest amount of interface between development and preserved areas (also known as the lowest perimeter to area ratio). A shorter perimeter will translate to less potential for edge effects to degrade the natural open space.

- ✓ The shape, size, and location of the area to be preserved as natural open space should create the maximum amount of habitat connectivity between on and off-site natural areas, preserve wildlife movement (see Appendix E for guidance on evaluating wildlife movement opportunities), and maximize the amount of resources available for resident wildlife.

LARGE LOT PARCEL MAP

This Development Standard allows for a "big picture" biological review of large lot parcel map land divisions that are strictly for the purposes of sale, lease, financing, or transfer. This type of land division is not required to specify the location of development or prepare site plans. As such, the intent of this Development Standard is to ensure that when parcels are created without site planning, future proposed development on the resultant parcels has a potential to meet SEA Development Standards. The process will allow for large contiguous parcels of sensitive habitats to remain intact, while also providing that individual parcels created through the land division have a reasonable opportunity to undergo a Ministerial SEA Review (per Section 22.102.060) when future development is proposed.

Large lot parcel map projects will be required to submit an Informational Exhibit and a BCM. The Informational Exhibit should consist of materials that show areas of development feasibility on the proposed lots and show open space amount and configuration. The BCM for a Large Lot Parcel Map subdivision project can be based on a desktop analysis of the area using the best available data and most recent aerial imagery available as supplemented by field surveys, if directed by Staff, such as for field verification of SEA Resource Categories. Subsequent development on the created parcels will require a site specific BCM and SEA Counseling to determine the appropriate SEA permit needed.

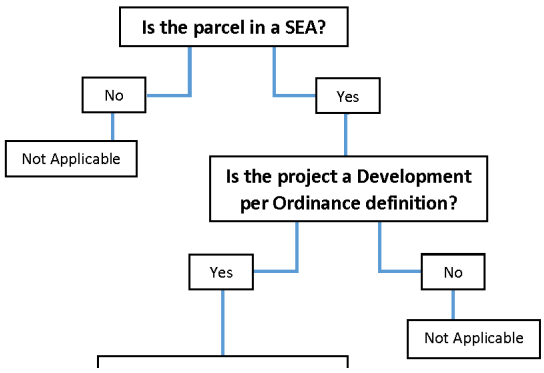
At the Large Lot Parcel Map phase, each parcel created by the subdivision must have at least 20,000 square feet of SEA Resource Category 4 and/or 5 on which a potential future development could occur. The potential developable area should be located a minimum of 200 feet (to account for fuel modification) from the required setback(s) of any identified water resources (see Water Resources Development Standard section above). Any Category 4 habitat beyond 500 square feet located in the potential developable area should be matched elsewhere on the same parcel by an equivalent or greater area of Category 4 habitat. As a land division, these projects do require a 75% set aside of natural open space. For complying with this open space requirement, and to maintain unit count, one or more dedicated open space lots may be created, or "pie shaped" lots utilized to effectively cluster development at the apex of these lots.

CHAPTER 5. PERMIT ANALYSIS

Chapter 2 of this Implementation Guide provided an overview of the SEA assessment process. Chapter 5 will discuss the requirements of each step of the SEA assessment process and provide guidance to Case Planners on how to analyze projects that require a Ministerial SEA Review or SEA CUP. It is recommended that the applicant find out whether the SEA regulations apply to their project as early as possible in the project design process, as a project may require revisions during the review process.

SEA ORDINANCE APPLICABILITY

Project applications submitted after the effective date of the SEA Ordinance will be subject to this Ordinance. Pending projects with a complete application prior to the adoption of the SEA Ordinance can choose to be subject to the previous SEA Ordinance or to this Ordinance.

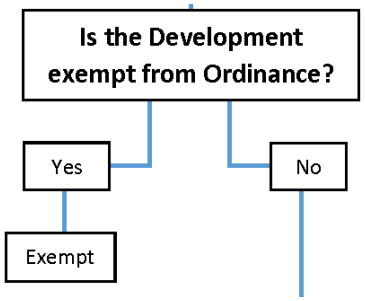


All areas designated in the General Plan as SEA within unincorporated LA County are subject to this Ordinance. This information can be found on DRP's online GIS application (Layer: SEA) and the Significant Ecological Areas and Coastal Resources Areas Map (Figure 9.3 of the General Plan).

Exceptions to this applicability include the Santa Monica Mountains (SMM) and Santa Catalina Island SEAs. The SMM North Area (SMMNA) Community Standards District (CSD) boundaries encompass the majority of the Santa Monica Mountains SEA. Since these areas so closely overlap, and since the SMMNA Plan was being updated concurrently with the SEA Ordinance and would incorporate similar measures for protecting SEA Resources, it was determined that development within areas of the SMM SEA that are also within the boundaries of the SMMNA Plan should continue to be regulated by the previous version of the SEA Ordinance, until such time that the SMMNA Plan becomes effective. Once the SMMNA Plan becomes effective, development within its SEAs will be regulated by the SMMNA Plan and CSD alone. Projects in the Santa Monica Mountains Coastal Zone, which is a CRA, are not subject to this Ordinance or the SMMNA Plan, but rather are governed by the SMM Local Coastal Program, which provides more specific and protective regulations of SEA Resources in the Santa Monica Mountains Coastal Zone. For Santa Catalina Island SEA, the SEA boundaries will remain as mapped in the Santa Catalina Island Local Coastal Program, and development in those areas will continue to be regulated through the version of the SEA Ordinance that was in effect at the time of certification of that LCP. The Santa Catalina Islands LCP will have to be amended and certified by the California Coastal Commission for this Ordinance to apply.

Another potential exception to the applicability of this ordinance could occur where there are provisions for a zone, supplemental district (e.g. Community Standards Districts, etc.), or elsewhere in Title 22 that also regulates development within the SEA. In such instances, the Case Planner shall apply the regulations that are more protective of the biological resources.

EXEMPTIONS



Following is a list of exemptions to the SEA Ordinance, as per Section 22.102.040 of the Zoning Code. Where exemptions apply, developers are nevertheless strongly encouraged to follow Development Standards and to consult with a biologist prior to disturbing natural habitat. Further, developers are required to abide by all state and federal regulations protecting biological resources, including protections for listed species (Fish and Game Code § 2050 et seq.), nesting birds (Fish and Game Code § 3500 et seq.), and alterations conducted within waters of the state (Fish and Game Code § 1600 et seq.), and obtain proper permits from the appropriate governing agencies, regardless of SEA Ordinance exemption status provided by the County.

A. WITHIN THE BOUNDARIES OF THE ANTELOPE VALLEY ("AV") AREA PLAN:

1. Construction of a new single-family residence ("SFR"), regardless of size, and

2. Improvements that are accessory to a SFR, regardless of size, including:
   a. additions to an existing SFR;
   b. landscaping,
   c. new accessory structures,
   d. additions to existing accessory structures, and
   e. new or expanded animal keeping areas and facilities.

   All such improvements must be associated with a single family residence and intended for personal use to be exempt from the SEA Ordinance. The boundaries of the AV Area Plan can be found using DRP's online GIS application.

3. Agricultural uses occurring on previously disturbed farmland. Previously disturbed farmland is defined by the Ordinance as non-grazing farmland mapped in the State of California Farmland Mapping and Monitoring Program (FMMP)[17], or proved to have been used for agricultural production at some time during the previous four years and is located within the boundaries of the AV Area Plan. Information on the FMMP can be found on the State of California Department of Conservation, Division of Land Resource Protection website.[18] While the FMMP is able to capture large farms with 10 acres or more, smaller farms may provide proof of agricultural production through permits or accreditations issued by County Department of Agricultural Commissioner.

These AV exemptions for development within the boundaries of the Antelope Valley Area Plan were expressly required per a Board of Supervisors motion from November 12, 2014.

[17] In order to be included in the FMMP, land must have been used for agricultural production at some time during the four years prior to the mapping date. FMMP maps are updated every two years, with 2016 data being the most recent year published at the time of this Ordinance's effective date.
[18] Information about the FMMP can be found at www.conservation.ca.gov/dlrp/fmmp/.

B. ALL AREAS OUTSIDE OF THE BOUNDARIES OF THE AV AREA PLAN:

1. Additions or modifications to existing SFRs, associated accessory structures, or animal keeping areas/structures, as long as such addition or modification does not increase the total building site area to more than 20,000 square feet or encroach into more than 10 percent of the dripline for up to four SEA Protected Trees[19].
2. A maximum of one accessory animal keeping structure not exceeding 120 square feet in size, provided it is located within 100 feet of the primary use. If proposing more than one animal keeping structure or any additional development, if the animal keeping structure is larger than 120 square feet, or if any part of the proposed animal keeping structure is more than 100 feet away from the primary use, it is subject to this Ordinance.

IN ALL SEAS

C. SEA CUPs and other valid use permits that require a Revised Exhibit "A" for maintenance, minor additions, or changes (not to exceed 10% of the approved project) may be exempt from this Ordinance if:

1. additions or changes do not expand the previously approved development footprint, or
2. maintenance, additions, or changes are operating under a valid use permit and found to be in substantial compliance with such permit.

D. Renewal of land use entitlements for discretionary permits (e.g., CUPs) may be exempt from this Ordinance if: 1) the proposed project scope does not expand the previously approved development footprint, and 2) impacts to biological resources were reviewed under the prior permit(s). If applying for renewal of an expired SEA CUP the project will be exempt as long as it is not proposing extensive improvements or modifications.

E. The General Plan 2035 expanded the SEA boundaries in 2015. As such, some existing developments that are within SEAs today were located outside of the SEA boundaries at the time of approval, and therefore were not subject to the previous SEA Ordinance. When renewal of these discretionary permits becomes necessary, they may be exempt from the current SEA Ordinance as long as the following two conditions apply:
   1. the proposed project does not expand the previously approved development footprint; and
   2. impacts to SEA Resources (e.g. biological resources, water resources, etc.) were reviewed under the prior permit(s). An example of adequate review of impacts to SEA Resources would be the completion of a Mitigated Negative Declaration (MND) meeting CEQA requirements, reviewed by the County Biologist, and having a mitigation monitoring and reporting program that was properly carried out.

F. Development that is under an adopted Specific Plan may be exempt from this Ordinance as long as it can be demonstrated that the development received adequate review of the impacts to SEA Resources under the Specific Plan. Some Specific Plans incorporate a comprehensive analysis of the SEA Resources within the plan area. Developments that are regulated by these Specific Plans may be able to prove that impacts to SEA Resources were adequately analyzed and mitigated through the Specific

[19] Although encroachment into the driplines of up to four SEA Protect Trees is allowed per this exemption, if any of the trees are also protected under the County Oak Tree Ordinance, which protects all oak trees over 8-inches DBH, the development will likely need to obtain an Oak Tree Permit for encroachment.

Plan, and therefore would be exempt from this Ordinance. However, not all Specific Plans include a detailed analysis of SEA Resources and may instead defer to the SEA Ordinance. Additionally, some Specific Plans remain unbuilt after several decades, which can result in biological analyses becoming outdated and not reflecting contemporary conservation regulations or resource needs. In such instances, a new development within an adopted Specific Plan may not be able to rely on previous biological analysis conducted for the Specific Plan. In all cases, the County Senior Biologist should be consulted when determining whether an adequate level of analysis of biological impacts was conducted through the Specific Plan.

G. Rebuilding and replacement of damaged legally built structures that will not increase the previously existing development footprint are exempt from the SEA Ordinance. Check historical case files to determine that the structures were legally established. Note that the exemption prohibits the expansion of the development footprint, rather than the Building Site Area. This allows for necessary minor modifications to the Building Site Area needed to meet current building code requirements, as long as the development footprint will not be expanded by such changes. For example, structural changes that require expanded fuel modification or brush clearance would constitute expansion of the development footprint.

H. Land divisions for the purposes of the Land Conservation Act/Williamson Act are exempt from the SEA Ordinance. Under the Land Conservation Act, also known as the Williamson Act, local governments can enter into voluntary contracts with private landowners for the purpose of restricting specified lands to agricultural or open space uses for defined periods of time. With the new land use designation under the Land Conservation Act, the property tax is assessed at a lower rate since the use of the land is now farming and open space as opposed to the full market value of the previous use.

I. Fire protection through fuel modification and brush clearance (to provide defensible space) for existing structures is exempt from the SEA Ordinance. The applicant will need to submit a fuel modification plan approved by the Fire Department. Practices which disturb the soil, such as tilling and disking, are not allowed for fuel modification or brush clearance in SEAs.

J. Periodic reviews established in Section 22.190.080 (Reclamation Plan) for previously approved surface mining permits and reclamation plans authorized to operate under Chapter 22.190 (Surface Mining Permits) are exempt from the SEA Ordinance, provided that such periodic review:
    1. is conducted during the life of that grant (e.g. the grant term of the permit is still valid);
    2. does not include proposed changes that would result in expanded development; and
    3. is consistent with valid permits.

K. Repair or ~~M~~maintenance of existing legally established driveways, streets, and highways that do not extend beyond the previously disturbed footprint and occur exclusively within the established right of way is exempt from this Ordinance. Maintenance encompasses activities ~~that do not extend beyond the previously disturbed footprint and occur exclusively within the established right of way,~~ such as, filing potholes, crack sealing, chip sealing, slurry seal, patching, and resurfacing. Repairs include replacing washed out roads that do not impact drainages or streams and are within the existing approved footprint. ~~It~~ Repair or maintenance does not include such ~~things~~ activities as road-widening, rerouting, or replacing washed out culverts or bridges.

L. Certain sections of the County Code, including Titles 21 (Subdivisions) and 22 (Zoning), Title 12 (Low Impact Development), and Title 31 (Green Building), have regulations specifically related to tree planting for various types of projects. If the only impact from a proposed development is related to trees

planted to meet these code requirements, the development is exempt from this Ordinance. Such trees are typically planted within very close proximity to development, such as within parking lots and close to buildings, and encroachment into their driplines for regular maintenance and repairs of facilities is expected. Requiring SEA analysis for impacts to these trees alone will not be required. This exemption does not apply to native trees planted as required mitigation. Note that if the tree(s) being impacted is an oak species, the Oak Tree Ordinance may still apply depending on the size of the tree.

M. Emergency removal of a SEA Protected Tree is exempt from this Ordinance if the reason for the removal is due to a hazardous or dangerous condition, such as trees damaged or destroyed by flood, fire, wind, drought, pests, or disease and posing a significant threat to people, structures, infrastructure, property, or other trees. A removal must be approved after a visual inspection by a Forester with the Fire Department in consultation with a County Biologist. There is no requirement for planting of new trees to mitigate for emergency tree removals; however, replanting with appropriate native trees is strongly encouraged.

N. Tree maintenance that is needed to ensure the continued health[20] of a SEA Protected Tree is exempt from the Ordinance as long as the maintenance is performed in accordance with guidelines published by the National Arborist Association, and that the pruning:
    1. does not remove branches in excess of two-inch diameter, and
    2. does not remove more than 25% of the tree's overall canopy within a two year period.

    There are no submittal requirements; however, pruning or trimming in excess of that allowed which leads to loss of the tree or a notable decline in tree health, as determined by a Forester with the Fire Department or the County Biologist, is a violation of the Ordinance and will require a Protected Tree Permit.

O. Emergency or routine maintenance of existing public utility infrastructure that is necessary to protect or maintain essential components of an existing utility or transmission system is exempt.

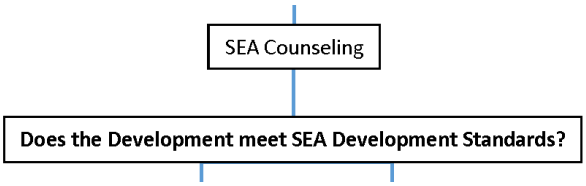
P. Trees that qualify as protected, but which can be demonstrated to have been planted by a person for the purposes of affecting the architecture, climate, or aesthetics of a given place and that are, therefore, considered landscape features, may be planted, or removed or altered without an SEA or Protected Tree permit. Documentation of the planting must be provided, and may be in the form of invoices, photographs, an approved landscaping plan that clearly indicates the location and species of the new tree to be planted, or other reasonable means. Trees planted as mitigation do not qualify as introduced.

SEA COUNSELING

The purpose of SEA Counseling was previously discussed in Chapter 2. After confirming the applicability of the Ordinance and that no exemptions apply to the project, the applicant will submit, in-person to LDCC or online through EPIC-LA, the following required materials to schedule the SEA Counseling meeting:

[20] Additional Tree Pruning tips: see ISA Tree Pruning Guidelines: www.treesaregood.org/treeowner/pruningyourtrees, Arbor Day Foundation "Keys to Pruning": www.arborday.org/trees/tips/keys-to-pruning.cfm, and Los Angeles Tree Trimming Guidelines: losangelesaudubon.org/images/stories/pdf/TTGMay2011/ttg-may-2011-english-print-collate.pdf.

1. SEA Counseling Application
2. Biological Constraints Map
3. Conceptual Project Design



The project will be assigned to an appropriate Case Planner and County Biologist based on the information provided in the SEA Counseling Application. A SEA Counseling meeting between the applicant, Case Planner, and County Biologist will be scheduled. The SEA Counseling may be combined with a One-Stop appointment for some projects. Below is a flowchart providing step-by-step guidance on SEA Counseling application procedures, including application intake, routing to the appropriate planner, and applying for a land use permit.

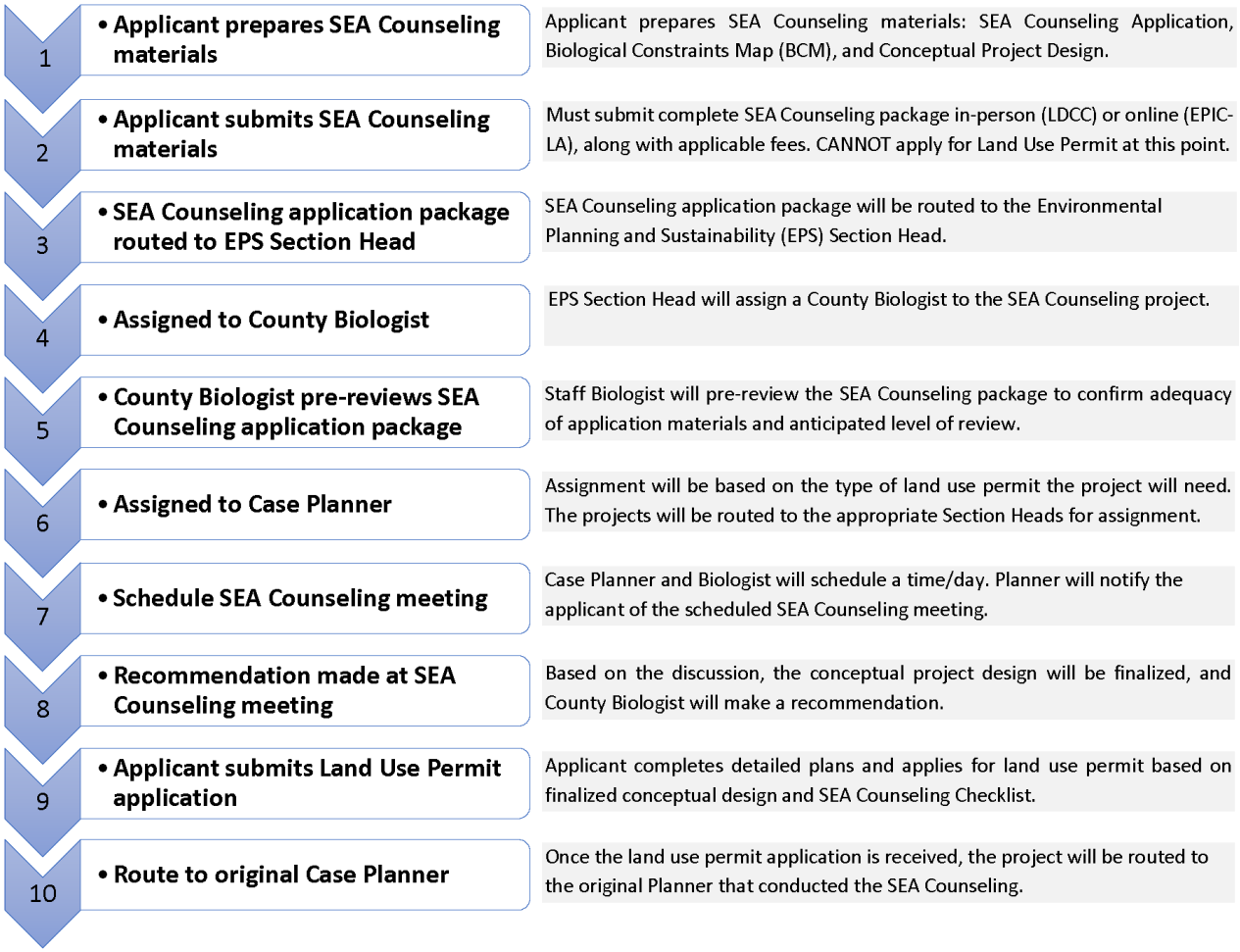


Figure 32. SEA Counseling Flowchart

1. SEA Counseling Application

For the SEA Counseling Application, the applicant will need to provide a sufficient project description. The information for the SEA Counseling Application should include, at minimum:

- Project name and address
- Assessor's Parcel Numbers (APNs)
- Size of parcel(s) – in acres
- Applicant name and contact information
- SEA name
- Consulting biologist name and contact information – Biologist must be on the SEATAC Certified Consultants List
- Date of Biological Survey
- Project Description – It is important that the applicant submit a detailed project description. The project description should include current and proposed uses. The more information we have about the project from the beginning, the better we can guide the applicant on how to design the project to minimize impacts to SEA Resources.

2. Biological Constraints Map (BCM)

See Chapter 6 for specific information regarding the preparation of the BCM and required content.

3. Conceptual Project Design

The Conceptual Project Design will allow the Case Planner and County Biologist to get an initial view of how the project may impact SEA Resources. The Conceptual Project Design can be shown directly on the BCM or separately as a Conceptual Site Plan. The Conceptual Project Design should depict the following:

- Graded areas
- Existing and proposed structure locations
- Fuel modification zone to 200-feet from all structures
- Utility access
- Driveways and parking areas
- Landscaped areas
- Exploratory testing locations

The purpose of the Conceptual Project Design is to guide project design to avoid or limit impact to SEA Resources. A Conceptual Project Design should not be as detailed as complete site plans for land use permit application submittal with engineering drawings. It should allow for flexibility and redesign based on the discussion at the SEA Counseling meeting.

SEA Counseling Analysis

After ensuring that the SEA Counseling application is complete, the Case Planner and County Biologist will analyze the Project Description, BCM, and Conceptual Project Design using the SEA Counseling Checklist, found in Appendix D. The Case Planner and County Biologist will analyze the project during SEA Counseling to recommend a SEA assessment track: Ministerial SEA Review, Ministerial SEA Review with Protected Tree Permit, or SEA CUP. For a Ministerial SEA Review, the project will need a development footprint of no more than 20,000 square feet, meet all Development Standards in the SEA Ordinance, and provide adequate on-site natural open space preservation to compensate for impacts to SEA Resources. Projects that are unable to meet the requirements for a Ministerial SEA Review will be recommended for a SEA CUP, which is a discretionary review process.

DEVELOPMENT STANDARDS

The SEA Ordinance Development Standards are organized under the following topics: SEA Resources, Water Resources, Other (or Area-Wide) Development Standards, and Land Use Specific Development Standards. Refer to Chapter 4 for more information on the Development Standards and design guidelines.

VEGETATION REMOVAL AND NATURAL OPEN SPACE PRESERVATION

The Development Standards allow for a certain amount of SEA Resources to be disturbed but also require on-site preservation of natural open space at certain ratios to compensate for the disturbed resources. Staff will use the BCM and Conceptual Project Design to quantify the amount of each SEA Resource Category within the proposed development footprint and the amount of each remaining outside of the development footprint.

Amount to be Disturbed:	Remaining Available to Preserve:	Preservation Ratio Available:
sq ft	sq ft	(*area preserved: area disturbed*)

Staff will compare the proposed numbers to the thresholds and ratios detailed in the SEA Resources section of the Development Standards in the Ordinance. Projects that meet these thresholds and ratios may be recommended for a Ministerial SEA Review. Projects that do not meet the requirements will be recommended for a SEA CUP. Refer to Chapter 8 for more information on Natural Open Space preservation and the appropriate mechanisms.

AFTER SEA COUNSELING

A copy of the completed SEA Counseling Checklist along with a signed and dated stamped copy of the SEA Counseling Application[21] will be given to the applicant to submit along with the application package to LDCC during Land Use Permit case intake. This checklist will indicate the SEA Counseling recommendation made by the Case Planner and County Biologist.

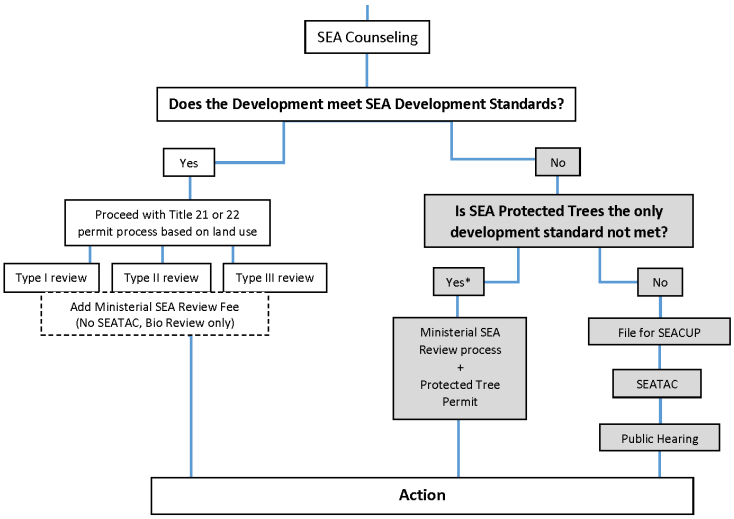
[21] Including the BCM and Conceptual Project Design assessed at the SEA Counseling.

MINISTERIAL SEA REVIEW

PROCESSING MINISTERIAL SEA REVIEW

Projects recommended for Ministerial SEA Review at the conclusion of the SEA Counseling will apply for the appropriate

land use permit based on the proposed use. The Ministerial SEA Review will be charged as an additional fee that covers the County Biologist's review. There will not be a separate approval for the Ministerial SEA Review, unless the development does not require a use permit, in which case the Ministerial SEA Review will ~~be processed as~~ consist of a biological review and a site plan review.



The application materials required for Ministerial SEA Review are found in Section 22.106.060(B). They include a site plan[22], a biological constraints map, and natural open space recordation documentation. To meet the natural open space recordation documentation requirement, the applicant should submit a draft version of the deed restriction or covenant with the application for Department review. After Staff has reviewed and agreed that the document and area to be preserved satisfy the requirements of the SEA Ordinance, the natural open space may be recorded. The final recordation documentation should be submitted to the Department in order to receive the stamped plans.

The County Biologist will make the following determinations:

- Project meets all relevant Development Standards, and
- the required amount of on-site preserved natural open space is provided.

The Ministerial SEA Review will be reviewed concurrently with the processing of the land use permit. The Ministerial SEA Review will be approved as part of the land use permit final approval.

MINISTERIAL SEA REVIEW ANALYSIS

When the Case Planner first receives the land use application package, the planner must confirm that the land use permit application site plan matches the conceptual project design reviewed at the SEA Counseling. Confer with the County Biologist if the project design submitted for the land use permit application is different from the original Conceptual Project Design. Substantial changes from the Conceptual Project Design previously vetted by the County Biologist may not meet Development Standards, thus changing the SEA assessment type.

[22] Site plan should show all proposed development, including on-site and off-site ground disturbing activities and vegetation removal.

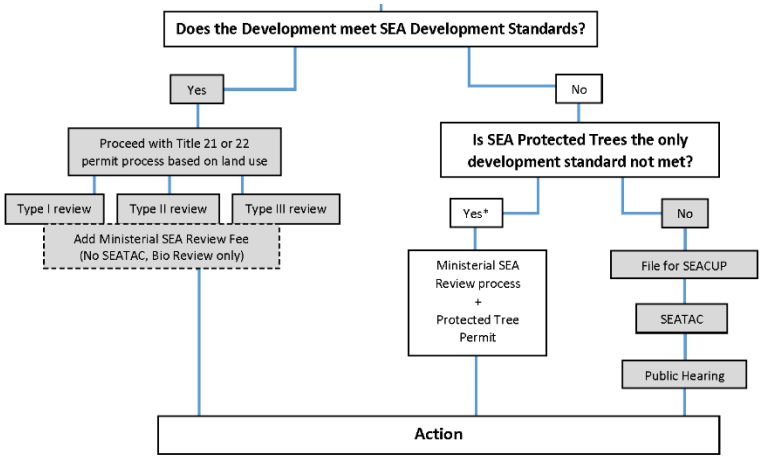
The Case Planner will refer to the SEA Counseling Checklist and attached conceptual project design to confirm the Ministerial SEA Review determination before processing the permit. The Ministerial SEA Review determination indicates that the project, the design that was reviewed during SEA Counseling, meets the Development Standards of the SEA Ordinance and is providing the required amount of preserved on-site natural open space.

If the project requires a discretionary land use permit (i.e. a minor CUP or CUP) along with a Ministerial SEA Review, a statement of SEA Findings is not required. Meeting the Development Standards through a Ministerial SEA Review determination is the avenue of substantiating the SEA Findings, and the Staff Report for the land use permit should simply discuss how the project meets the SEA Ordinance Development Standards. Do not discuss the SEA Findings in the CUP Findings and Conditions as the Ministerial SEA Review is not a discretionary process.

MINISTERIAL SEA REVIEW AND CEQA

Projects should refer to the land use permit for CEQA determination. Ministerial land use permits have a statutory CEQA exemption that do not require further discussion. Discretionary land use permits may have CEQA determinations that range from Categorical Exemption to EIR. The Biological Resources section of the Initial Study should include a detailed discussion on how the project meets Development Standards established in the SEA Ordinance. See the Annotated Initial Study, Biological Resources section, for further instructions on SEA discussion.

MINISTERIAL SEA REVIEW WITH PROTECTED TREE PERMIT



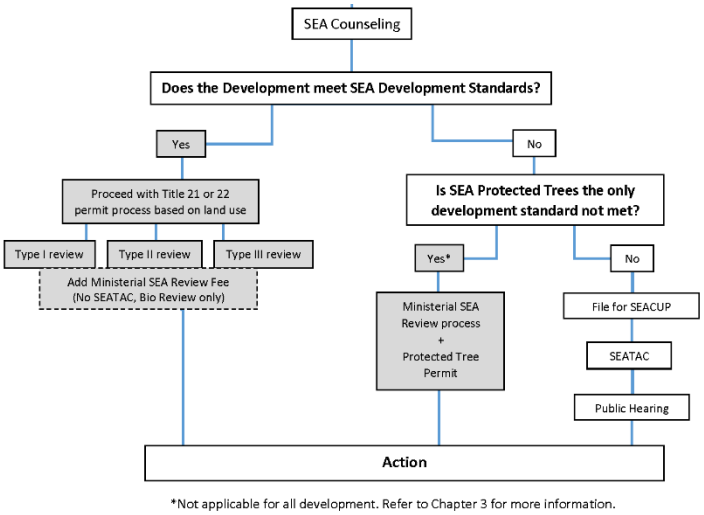
*Not applicable for all development. Refer to Chapter 3 for more information.

If a development is able to meet all Development Standards except for impacts to SEA Protected Trees, it may be able to obtain a Protected Tree Permit and proceed with the Ministerial SEA Review. All PTPs will have a corresponding Ministerial SEA Review, since the Ministerial SEA Review process will determine that all other Development Standards are met and identify the need for a PTP. A PTP may be obtained for pruning of protected trees in excess of that allowed by Exemption N, encroachments of up to 30% of the TPZ for any number of protected trees, and/or removal of two (non-heritage size) protected trees, provided that such activity can meet the findings and burden of proof. Removal of more than two SEA Protected Trees or removal of any Heritage Tree requires a SEA CUP. See Chapter 3 for details regarding the PTP application process.

SEA CONDITIONAL USE PERMIT (SEA CUP)

PROCESSING A SEA CUP

Projects that do not qualify for a Ministerial SEA Review will need to file for a SEA CUP. The land use and SEA impacts will be reviewed under the same SEA CUP. The applicant will provide the application materials required for CUPs and additional materials for the SEA portion of the review (e.g. Biological Constraints Analysis, Biota Report, etc.), as determined by the County Biologist. The required fees will include SEA CUP fee, Biologist Site Visit fee, and SEATAC fee.



*Not applicable for all development. Refer to Chapter 3 for more information.

There may be situations where the land use is a by-right use but due to the amount of impact to the SEA Resources, the project will require a SEA CUP. In these cases, both the by-right use and SEA impacts will receive a discretionary review through a SEA CUP. Both CUP and SEA Burden of Proofs will be required.

SEA CUP ANALYSIS

The Case Planner will make sure that the SEA CUP application site plan matches the Conceptual Project Design that was reviewed at the SEA Counseling meeting. Changes from the Conceptual Project Design can change the SEA assessment type. The Case Planner will consult with the County Biologist to review the following:

- Adequacy of BCA and/or Biota Report
- Need for and adequacy of additional studies and reports (e.g. rare plant survey, jurisdictional waters delineations, oak tree reports, oak woodlands reports, protocol surveys)
- Adequacy of proposed mitigations
- On-site or off-site natural open space preservation (refer to Chapter 8)

SEA CUP AND CEQA

All SEA CUPs will need a CEQA analysis since the result will be a discretionary land use permit. The Biological Resources section of the Initial Study should include a detailed discussion of project impacts on SEA Resources. See the Annotated Initial Study, Biological Resources section, for further instructions on SEA discussion. Projects applying for a SEA CUP will also be required to submit a BCA and Biota Report, which will assist in completing the Biological Resources section of the Initial Study.

SEATAC REVIEW

SEATAC is an expert advisory committee that assists the Department in assessing a project's impacts on biological resources within SEAs. The scope of SEATAC purview consists of the following:

- Whether the proposed development is consistent with Section 22.102.060 (SEA Development Standards);

CASE PLANNER'S SEA CUP ANALYSIS

Here are some questions the Case Planner can ask while analyzing the project. The answers will be incorporated into the Staff Report for Public Hearing.

- ✓ What are the impacts to SEA Resources within the proposed development and adjacent to project site?
- ✓ What are the cumulative losses to SEA Resources?
- ✓ How well do proposed measures avoid, mitigate, or protect SEA Resources?
- ✓ Is the project in compliance with SEA Findings?
- ✓ Are there any recommended changes to the proposed project to be in compliance with Development Standards and SEA Findings?
- ✓ Does the proposed project meet the relevant objectives and policies of the General Plan?
- ✓ Are there any recommended conditions that will ensure the proposed project can meet SEA Findings and relevant General Plan objectives and policies?
- ✓ What was SEATAC's determination of project compatibility? Does SEATAC have any applicable recommendations?

- ❖ Whether the appropriate natural open space mitigation ratios have been applied and the location of natural open space is appropriate;
- ❖ Whether the proposed development avoids disturbance to wildlife corridors;
- ❖ Whether the mitigation measures proposed for the project address impacts to SEA Resources;
- ❖ The proposed development's ability to demonstrate compatibility with the SEA Program per Section 22.102.080 (Findings and Decisions).

See the SEATAC Procedures Manual for more information on scheduling a SEATAC agenda item, required documents, and meeting procedures. The goal is for the applicant to efficiently utilize the SEATAC meetings to meet the recommendations of SEATAC.

The Case Planner should complete the SEATAC review before consulting other County Departments on the permit process. The project may need redesign based on SEATAC recommendations and/or mitigation measures. Once the project clears SEATAC and other department consultations, the Case Planner will schedule a public hearing for the SEA CUP.

SEA ORDINANCE FINDINGS

Projects processed through ministerial review inherently meet the findings required by the SEA Ordinance since Development Standards and natural open space preservation must be met for a ministerial review designation. However, for a discretionary project to be approved, the decision-making body must be able to justify an action taken based on sufficient findings that meet the burden of proof.

BURDEN OF PROOF

Applicants applying for a SEA CUP are required to provide Burden of Proof statements that substantiate how the proposed project will meet each required finding. These statements may assert how the project meets the burden of proof through project design or mitigation measures. Applicants are encouraged to

work with their consulting biologist(s) to draft biologically defensible statements based on the actual site conditions and regional context.

Planners will use the Burden of Proof statements provided by the applicant as the basis for demonstrating how the project addresses each required finding. The Ordinance, the SEA Implementation Guide, the BCM, the BCA, and/or the Biota Report will also contain information that can be used to justify support for the project. The County Biologist is available for technical assistance.

The purpose of this section is to pose questions to guide applicants and Case Planners through the thought-process of creating adequate responses. These questions are provided as a starting point; they do not cover the full spectrum of circumstances that may need to be considered.

Development in the SEAs must demonstrate how the proposed development is designed to:

A. *Be highly compatible with the SEA Resources, including the preservation of natural open space areas and providing for the long-term maintenance of ecosystem functions;*

- What types of biotic resources are present and where can it be found?
- How much undisturbed land will be set aside for mitigation?
- What types of vegetation does the set aside land consist of?
- Is the vegetation comparable to the type of vegetation being disturbed by the project?
- What ecosystem functions are being provided by the areas being disturbed in comparison with the areas to be preserved?
- What actions will provide for long-term maintenance of ecosystem functions?
- Are there any edge effects from the project? (e.g. the introduction of Argentine ants, potential spread of invasive plants, increased predation on wildlife by domesticated animals, etc.)

B. *Avoid or minimize impacts to the SEA Resources and wildlife movement through one or more of the following: avoiding habitat fragmentation, minimizing edge effects, or siting development in the least sensitive location;*

- Has the project's development footprint been consolidated in the least biologically impactful location (or locations)?
- Has the project open space resulted in the largest and most intact block of habitat with the lowest perimeter to area ratio?
- Where are the areas with the highest biological value located on the project site?
- Where is there potential for wildlife movement across the project site?
- What actions will be taken to minimize impacts to areas of biological value?
- What actions will be taken to minimize impacts to wildlife movement?
- Does the project remove obstacles to wildlife movement or seek to restore natural habitat?
- See Appendix E for additional guidance for evaluating impacts of development on wildlife movement in LA County.

C. *Buffer important habitat areas from development by retaining sufficient natural vegetation cover and/or natural open spaces and integrating sensitive design features;*

- Where are the critical resource areas located on the parcel?
- Are there any vegetated areas or open space (can be disturbed, agricultural, or non-native vegetation) that act as buffers between the development and critical resource areas?
- Does the buffer area act as foraging habitat or a wildlife corridor?
- How much of the buffer area will the project retain?

- ❖ Are locally native plant species being utilized in the landscaping plan to act as a transition zone between the development and natural open space?
- ❖ Are fences and walls used in such a way as to buffer and protect natural habitat areas from impacts of the development, or do they create obstacles for wildlife movement?
- ❖ What design features, best management practices, and mitigation measures are being integrated to ensure the SEA Resources are adequately buffered from the development?

D. *Maintain the ecological and hydrological functions of water bodies, watercourses, and their tributaries;*

- ❖ Are there water bodies, watercourses, or tributaries on the parcel?
- ❖ Are they being retained in their natural state?
- ❖ If not being retained entirely in their natural state, what design features are utilized to ensure continued ecological function, connectivity, and hydrological function of the water resources?
- ❖ Will water resources be impacted by runoff from the development site or animal keeping facilities into the water resources? If so, what best management practices and design features are proposed to minimize impacts to water quality?
- ❖ What actions will be taken to preserve the natural state of the water bodies?

E. *Ensure that roads, access roads, driveways, and utilities do not conflict with Priority Biological Resources, habitat areas or migratory paths; and*

- ❖ Does the project propose new roads, access road, driveways, and utilities?
- ❖ If yes, are the roads proposed within areas with Priority Biological Resources, habitat areas or migratory paths?
- ❖ Are there any design features or mitigation measures to minimize the impacts of roads on critical resource areas (e.g. wildlife crossings)?
- ❖ Does the road bisect or encroach on migratory pathways?

F. *Promote the resiliency of the SEA to the greatest extent possible. For purposes of this finding, SEA resiliency cannot be preserved when the proposed development may cause any of the following:*
   a. *Significant unmitigated loss of contiguity or connectivity of the SEA;*
   b. *Significant unmitigated impact to a Priority Biological Resource;*
   c. *Removal of habitat that is the only known location of a new or rediscovered species; or*
   d. *Other factors as identified by SEATAC.*

- ❖ Does any part of the development footprint interrupt connectivity of the SEA?
- ❖ Does the project remove Priority Biological Resource without adequately mitigating for their loss?
- ❖ Does the project remove the only known location of a new or rediscovered species?
- ❖ Was this project recommended for approval by SEATAC?
- ❖ Did SEATAC identify additional factors that the project needs to address?
- ❖ Could the project be redesigned to preserve SEA resiliency as defined in this Finding?

PURPOSE OF SEA ORDINANCE

Although it is important to draft Burden of Proof statements with supportive evidence at the project level, the intent of the SEA Ordinance should always be considered. A comprehensive look at the overall project design, impacts, and mitigation measures and how these elements interact with the existing health of the individual SEAs should be conducted during project analysis. Adding a macro level review at the stage of

producing the findings will help protect against the possibilities of fragmenting SEAs and threatening their viability.

22.102.010 Purpose.

This Chapter establishes regulations to conserve the unique biological and physical diversity of the natural communities found within Significant Ecological Areas (SEA) by requiring development to be designed to avoid and minimize impacts to SEA Resources. These requirements will help ensure the long-term survival of the SEAs and their connectivity to regional natural resources. This Chapter regulates development within SEAs by:

A. ***Protecting the biodiversity, unique resources, and geological formations*** *contained in SEAs from incompatible development, as specified in the Conservation and Natural Resource Element of the General Plan;*

B. *Ensuring that projects* ***reduce the effects of habitat fragmentation and edge effects*** *by providing additional technical review of existing resources, potential impacts, and required mitigations;*

C. *Ensuring that development within a SEA* ***conserves biological diversity, habitat quality, and connectivity to sustain species populations and their ecosystem functions into the future****; and*

D. *Directing development to be designed in a manner, which* ***considers and avoids impacts*** *to SEA resources within the Los Angeles County region.*

PUBLIC HEARING

The public hearing process for SEA CUPs will follow the procedures for public hearing in the zoning code. Although all discretionary land use permits go to public hearing, the level of impacts to SEA Resources will determine which decision-making body will hear the project.

SEA CUPs with minimal impacts to SEA Resources can go through a Hearing Officer public hearing. SEA CUPs with extensive impacts to SEA Resources will go through a RPC public hearing. This is due to the elevated level of review conducted and recommendations provided by SEATAC to the decision-making body.

CHAPTER 6. BIOLOGICAL REPORTS

The SEA Ordinance requires special biological review for any development proposed within a SEA. The biological documentation required to process an application will depend on the extent of impacts to SEA Resources and ability to meet SEA Development Standards, and may include one or all of the following:

- Biological Constraints Map (BCM)
- Biological Constraints Analysis (BCA)
- Biota Report
- Restoration or Enhancement Plan

All of the above biological materials must be prepared by a biological consultant on the SEATAC Certified Biologist list maintained on the Department's SEATAC website[23]. These consultants are familiar with the preparation of biological reports for SEA applications, some of which are very similar to the biological sections of Environmental Impact Reports required for CEQA. They will also be able to provide guidance on avoidance of SEA Resources and best practices for minimizing impacts where Development Standards cannot be met. Additional surveys and reports may be required for SEA CUPs depending on the extent and condition of SEA Resources present on the project site; this may include an oak tree report, oak woodland analysis, rare plant survey, protocol survey for special status species, jurisdictional wetlands delineation, or habitat restoration or enhancement plan. The need for such reports will be determined by the County Biologist as early in the review process as possible, based on the BCM, BCA, and/or a County Biologist site visit.

It is the responsibility of the applicant or applicant's agent to hire one of the listed biologists to prepare the biological reports. Each report will be reviewed by a County Biologist to determine its accuracy and completeness, and the County Biologist may request changes or additions to biological reports to ensure that they are complete and accurate. If a submitted report is more than two (2) years old, the County Biologist may require updated field surveys and report revisions as necessary to accurately assess current conditions and proper classification of SEA Resources.

Early identification of SEA Resources and biological constraints assists in guiding applicants toward projects that are mindful of biological resources. For this reason, all non-exempt projects within a SEA are required to submit a BCM along with a Conceptual Project Design before applying for a development permit. The County Biologist and Case Planner will review the BCM along with the Conceptual Project Design at the SEA Counseling and again when the application is filed with the final site plans.

If the project meets the requirements for Ministerial SEA Review, the project's biological reporting ends here. If the review of the BCM and Conceptual Project Design at the SEA Counseling reveal that any of the Development Standards are not met, the applicant will have the opportunity to redesign the project while it is still in the conceptual phase or to move forward with a SEA CUP application. If the applicant is unable to, or chooses not to, redesign the project to meet all Development Standards, a SEA CUP will be needed, and additional biological reports, such as those indicated above, may be required. Chapters 2 (SEA Ordinance Assessment Process) and 5 (Permit Analysis) provide more detail regarding the SEA

[23] Found online at planning.lacounty.gov/agenda/seatac

assessment and permitting process. The primary biological reports required during the SEA assessment process are detailed below.

BIOLOGICAL CONSTRAINTS MAP (BCM)

The BCM is a tool for quickly identifying areas of potential biological significance in the vicinity of the proposed development. In conjunction with a Conceptual Project Design, the BCM is utilized to evaluate whether SEA Development Standards can be met. The BCM must be drawn to scale and depict:

- the project site, including the full extent of all project parcels, and extending 200 feet out from the parcel(s)' boundaries ("study area");
- SEA boundaries (location of the project in relation to SEA boundaries may be shown on an inset or separate map);
- existing development (structures, graded areas, roads, etc.);
- natural communities, using descriptions in CNPS Online Manual of California Vegetation[24], and indicating the SEA Resource Category for each;
- location, species and trunk diameter (at standard height) of all trees;
- tree protected zones for all SEA Protected Trees (see Appendix A);
- special status species observed during the biological survey as well as any previously recorded observations of special status species within the study area (e.g. using CNDDB records, prior biological reports, etc.);
- special habitat features indicative of the presence of a special status or rare animal, such as nests, dens, burrows, and roosts;
- lands designated as Critical Habitat by USFWS;
- location and extent of water resources, such as streams, lakes, reservoirs, ponds, wetlands, marshes, seeps, springs, vernal pools, and playas;
- required setbacks from water resources;
- any physical site features that are expected to facilitate or restrict wildlife movement across the site, such as ridgelines, remnants or strips of habitat, culverts, fences, etc.;
- rock outcrops, cliffs, or other geological features that may be utilized by species that specialize in these uncommon structural niches; and
- protected open space that has been recorded over any part of the project site or on adjacent properties.

The process for preparing a BCM will vary slightly depending on the approach of each individual biologist. Each BCM should be based on the following, at minimum:

- a review of sensitive biological resources known or expected to occur in the vicinity of the project site utilizing such resources as the California Natural Diversity Database (CNDDB), California Native Plant Society sensitive plant lists, and other reliable sources;

[24] Available at: www.cnps.org/vegetation

- a minimum of one field survey of the project site parcel(s)[25] conducted during the appropriate time of year (typically spring), utilizing survey methods appropriate to the species and habitats being surveyed;
- geographic coordinates of observed sensitive or rare plants, animals, and special habitat features indicative of the presence of a special status or rare animal;
- determination of natural communities (i.e. alliances and associations) present on the project site[26], based on classifications presented in the CNPS Online Manual of California Vegetation;
- determination of CDFW imperilment[27] and CNPS rare plant rankings[28] for biological resources found on site; and
- preparation of the biological constraints map.

Additionally, a Conceptual Project Design should be provided either on the BCM or as a separate site plan for the SEA Counseling meeting. The Conceptual Project Design should include:

- the proposed locations of structures,
- fuel modification/brush clearance zones,
- utility access and driveways,
- exploratory testing,
- other areas of expected disturbance from the proposed project, and
- any areas of proposed natural open space to be recorded in order to meet Development Standards.

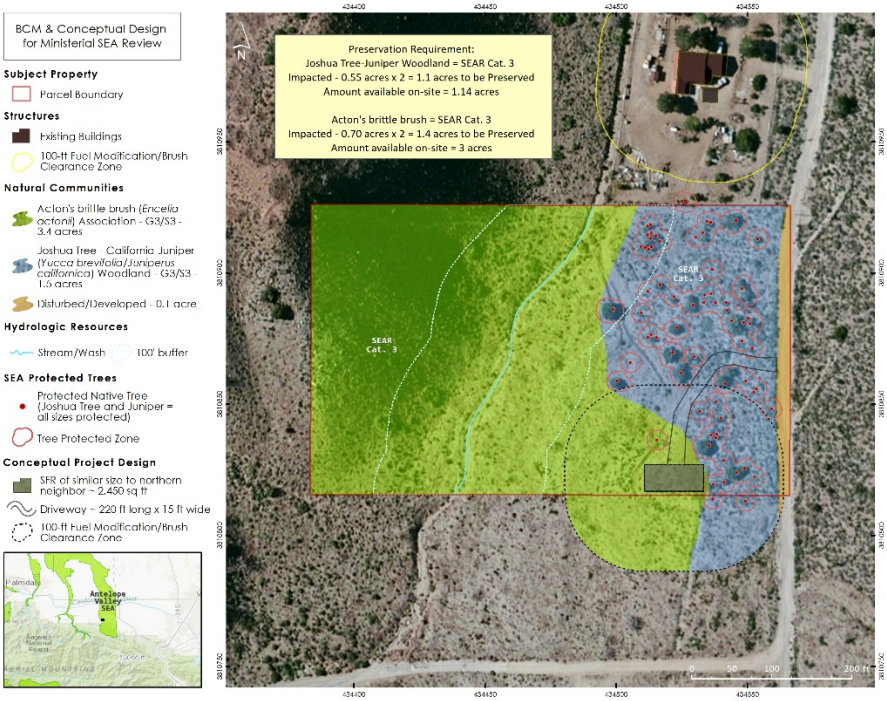
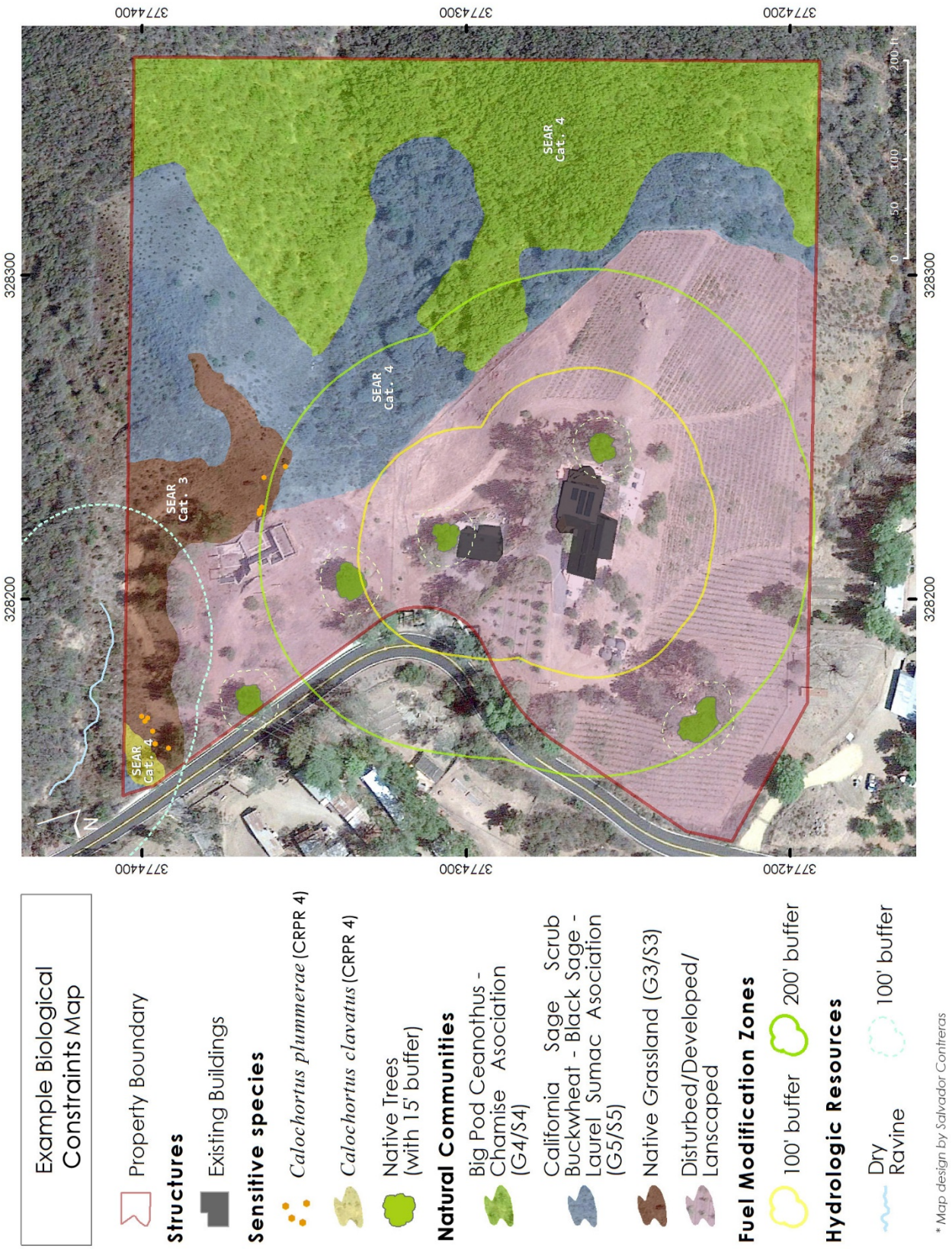


Figure 33. Example BCM with Conceptual Project Design for SEA Counseling.

[25] Estimate resources within 200 feet of the project site on neighboring parcels if not physically accessible.
[26] In the event that the biologist encounters a natural community that has not been defined in the CNPS Online Manual of California Vegetation or ranked by CDFW Survey of California Vegetation, the biologist should consult with CNPS and CDFW to determine appropriate classification and ranking utilizing NatureServe's Conservation Status Assessment methodology for unranked communities.
[27] www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities
[28] www.cnps.org/cnps/rareplants/inventory/index.php


Example Biological Constraints Map
Property Boundary
Structures
Existing Buildings
Sensitive species
Calochortus plummerae (CRPR 4)
Calochortus clavatus (CRPR 4)
Native Trees (with 15' buffer)
Natural Communities
Big Pod Ceanothus - Chamise Association (G4/S4)
California Sage Scrub Buckwheat - Black Sage - Laurel Sumac Association (G5/S5)
Native Grassland (G3/S3)
Disturbed/Developed/ Lanscaped
Fuel Modification Zones
100' buffer
200' buffer
Hydrologic Resources
Dry Ravine
100' buffer
* Map design by Salvador Contreras
SEAR Cat. 4
SEAR Cat. 3
SEAR Cat. 4
SEAR Cat. 4
N
328200
328300
3774400
3774300
3774200
0
50
100
200 ft

BIOLOGICAL CONSTRAINTS ANALYSIS (BCA)

A Biological Constraints Analysis (BCA) needs to be submitted with the applicant's SEA CUP application. This report builds on the BCM (which is to be included as part of the report), providing detailed discussions of the biological resources, natural features, and regional context of the project site, and providing a more thorough community-level assessment of the biological resources on the project site and surrounding area. The BCA is based on a combination of literature review and on-site investigations. As is the case with all biological reports prepared for SEA analysis, a SEATAC Certified Biological Consultant must prepare the BCA. At minimum, the report should include:

- a parcel description, including parcel size, location, and SEA;
- description of natural geographic features, including drainages and watershed with names;
- description of methodology of biological survey;
- vegetation data and natural community descriptions;
- tables and discussions of sensitive fauna and flora;
- lists of all plant and animal species observed directly or indirectly on site and in adjacent areas of similar habitat;
- description and map of existing land uses in the project area;
- description of open space reserves in the area and depiction of wildlife movement/habitat linkage relationships to open space;
- reference to and relationship with any conservation plans in the vicinity;
- description of habitats, alliances, associations and vegetative communities in the vicinity with respect to those on site;
- rough estimates of the overall population sizes of species of flora and fauna on site and in vicinity;
- description of overall biological value of the area as it fits in to the biotic mosaic and contributes to SEA ecological functions;
- regulatory framework; and
- the Biological Constraints Map.

The Department may waive the BCA requirement if the County Biologist determines that biological resources are sufficiently limited or uncomplicated to be adequately addressed by the BCM and Biota Report alone. A complete checklist of items required in the BCA is included Appendix D.

BIOTA REPORT

The Biota Report is required for all SEA CUPs. The applicant will need to work closely with the project biologist on this report since some of the information required will need to be supplied by the applicant (e.g. the project description). The applicant should be prepared to meet with the project biologist to go over the SEA guidelines together for Biota Reports and assign responsibility as appropriate for the different items.

The Biota Report uses the data provided in the BCM, BCA, and additional surveys (i.e. rare plant survey, oak tree report, jurisdictional wetland delineations, special status species surveys, etc.) to provide a more complete analysis of the project's impacts on SEA Resources. The Biota Report includes a discussion of possible and probable impacts from the development and proposes specific mitigation measures and monitoring to address each impact.

The analysis presented in the Biota Report assists in the consistency review of the project, SEA findings, and in preparation of the Initial Study. If a Mitigated Negative Declaration (MND) or Environmental Impact Report (EIR) is required for the project, the Biota Report forms the basis of the Biological Resources section of the MND or EIR. A complete checklist of items required in the Biota Report is included in Appendix D. At minimum, the report will:

- incorporate the BCM and BCA as documentation of existing conditions on the project site;
- include a project description;
- discuss impacts (direct, indirect, and cumulative) to vegetation, special-status species, protected and noteworthy trees, wildlife habitat, and the integrity of the SEA;
- propose mitigation measures, such as natural open space preservation and/or habitat restoration;
- establish a monitoring program;
- discuss consistency with compatibility criteria; and
- have a conclusion as to whether any impacts remain after mitigation.

RESTORATION OR ENHANCEMENT PLAN

A restoration or enhancement plan (or equivalent document) is required for any project proposing to restore or enhance natural habitat within a SEA. Habitat restoration is the process of returning a degraded habitat to its pre-existing condition, including restoring self-sustaining ecosystem functions. Enhancement is the process of altering a site to increase one or more functions (e.g., removal of invasive plant species or planting of native species).

Each restoration or enhancement plan should include the following components:

- A description and map of the area proposed to be restored or enhanced. Include a physical address or description of project location, geographic coordinates, watershed, USGS 7.5' Topographic Quadrangle, and Assessor Parcel Number(s).
- A description of proposed restoration or enhancement activities and their timelines. Include diagrams, drawings, plans, and/or maps that show the location and dimensions of the proposed restoration. Specify the equipment and machinery (if any) that will be used to complete the project and identify on plans where equipment will enter or exit the area. This description should include incidental and support activities (e.g. staging of equipment and materials, acquisition of plant materials, maintenance, etc.), as well as the principal restoration tasks. Describe best management practices to be employed to prevent sediment from entering watercourses during and after construction and avoidance and/or minimization measures to protect fish, wildlife, and plant resources.
- Plant palette and source of plant materials to be used.
- An inventory of SEA Resources on the project site, including an evaluation of existing habitat quality. Discuss how the project will provide a net benefit to SEA Resources (e.g. species and plant communities that are expected to benefit from the project).
- Clearly stated goals and objectives and well-defined performance standards (i.e. success criteria). Performance standards should be attainable and measurable, and stated quantitatively in biological terms.
- A description of methodologies to be followed, demonstrating that the project is consistent with sources that describe best available restoration and enhancement methodologies. List references and attach or provide a weblink to the document(s) when available.

- A description of maintenance tasks (e.g. weeding, watering, and other routine maintenance needed to ensure restoration success) and monitoring provisions. The plan should state type of maintenance, frequency, duration, and responsible party for both short-term and long-term maintenance.
- A qualitative and quantitative monitoring plan, including a map of proposed sampling locations. Monitoring will ideally include both structural (state) and functional (process) attributes and be measured at multiple levels of biological organizations, from population to landscape scale, as appropriate. The monitoring period for each restoration project will depend on the scale and type of restoration and specific site conditions. The SEA Ordinance requires a minimum monitoring period of five years, but some projects may require a longer monitoring period to ensure success. The length of the monitoring period should be based on realistic projections of the restored habitat becoming self-sustaining.

The restoration plan submitted for review does not necessarily have to be developed specifically for the SEA Ordinance. If a similar document is being/has been prepared for another permitting agency or for CEQA review, the Department will likely accept that document, provided that it contains sufficient detail to evaluate whether the project meets SEA Findings (see Section 22.102.080).

Chapter 7 provides general guidelines and best practices for habitat restoration within SEAs. All restoration projects should incorporate appropriate practices from Chapter 7 into their restoration and enhancement plans.

CHAPTER 7. HABITAT RESTORATION

Many habitats in SEAs have been lost, degraded, or fragmented due to past development or use. This degradation is generally accompanied by loss and impairment of valuable ecosystem functions and amenities that support the health and wellbeing of the human populations of LA County. The County welcomes habitat restoration projects, which aim to restore SEA Resources and ecosystem services to degraded habitats. When done well, habitat restoration can regain and correct ecosystem process and functions that filter our water and air, help control air temperatures, support biodiversity, and provide movement opportunities for wildlife. Failure to restore degraded ecosystems can result in increased environmental cost later, in the extinction of species or natural communities, and in permanent ecological damage.

To improve the County's monitoring of ecosystem health and encourage best practices in habitat restoration, the SEA Ordinance establishes a mandatory (but free) review of habitat restoration projects within SEAs to ensure that the methodologies and practices being implemented are consistent with the goals and policies of the SEA Program. To qualify for this special Habitat Restoration Review, a project should demonstrate, through a Restoration or Enhancement Plan or the equivalent, that it meets the SEA Findings (Section 22.102.080(D)). The project must also be voluntary and not part of a larger project whose primary purpose is not habitat restoration, such as a land use permit for a non-habitat restoration construction activity. Restoration proposed as part of a larger project that includes non-habitat restoration development will be reviewed as part of the permit for that development. If the restoration project does not demonstrate that it meets the SEA Findings, it will be required to go through the same SEA assessment process as is required for a development project.

WHAT IS HABITAT RESTORATION?

Habitat restoration is the process of returning a habitat to a close resemblance of its condition prior to disturbance.

Successful restoration means that both ecosystem structure and function have been recreated or repaired to such degree that the natural ecosystem processes that contribute to self-maintenance of the ecosystem are operating effectively and without the need for further human engineering or interference.

Even small scale or partial ecological restoration can substantially expand or improve SEA Resources and ecosystem services.

For restoration projects that meet the SEA Findings, the Habitat Restoration Review will be used by the County to provide guidance and recommendations for ensuring consistency with the SEA Program. By reviewing and monitoring habitat restoration projects, the County will be able to collect data on where and how restoration is taking place within SEAs, track successes, and identify trends and information gaps. The County will use this information to assist in evaluating the overall success of the SEA Program.

HABITAT RESTORATION REVIEW

The purpose of Habitat Restoration Review is to assist restoration practitioners in designing sound habitat restoration and enhancement projects that are compatible with the goals of the SEA Program. This chapter is also intended to assist Department Staff in evaluating and approving restoration or enhancement projects. These guidelines and principles are general and intended to be applied flexibly on a site-by-site basis. They do not replace or supersede the permit requirements of any other agency, such as the U.S.

Figure 34. Habitat restoration before and after pictures. Source: Puente Hills Habitat Preservation Authority website.

Fish and Wildlife Service, Army Corps of Engineers, State Water Resources Control Board, or CA Department of Fish and Wildlife. However, the County review process is intended to allow for coordination with other permit processes by allowing the use of common application materials and content.

While it is not required by the Ordinance, we highly recommend that applicants schedule a pre-submittal counseling meeting with Department Staff to get feedback on the project and its environmental protection measures. Department Staff can provide valuable insight about local conditions, including likely presence of sensitive species, upcoming development in the project vicinity, and other important information that may affect project plans. Attending a pre-submittal counseling meeting will also help ensure that sufficient technical detail is included in the restoration document to be submitted. To schedule a pre-submittal counseling meeting, contact sea@planning.lacounty.gov.

BASIC PRINCIPLES

- The desired outcome for all restoration projects is to create and enhance biologically functional habitats that support target species as well as other species that are important to overall biodiversity.
- Restoration activities should not begin until the restoration plan is reviewed by the Department.
- The restoration should be led by an experienced restoration ecologist with documented experience of successful native habitat restoration in the region.
- The restoration should be performed by experienced restoration contractors specializing in native habitat restoration.
- There are numerous resources available to guide restoration practitioners on successful restoration strategies for the type of habitat being restored. The proposed methodology should be consistent with such manuals and documents that describe best available restoration and enhancement methodologies for the type of habitat being restored.
- Restoration should be conducted only on sites where soils, hydrology, and microclimate conditions are suitable for the type of community being restored. Identification of restoration sites should involve an analysis of the suitability of potential sites to support the desired habitat, including comprehensive mapping and documentation of physical and biological site conditions through species surveys, soils surveys, drainage mapping, and constraints analysis.

- Riparian Restoration: All sites should contain suitable hydrological conditions and surrounding land uses to ensure a self-sustaining functioning riparian vegetation community.
- Priority should be given to restoring areas that occur adjacent to existing areas of native habitat, especially those that support sensitive species, with the goal of increasing habitat patch size and connectivity while restoring habitat values that will benefit sensitive species.
- Implementation may be phased over a multi-year timeline (often 5-10 years) to provide for greater diversity of planting ages. Strategies for making prompt mid-course adjustments or corrections in response to changing conditions (e.g. rainfall, fire, flood, etc.) should be included in the restoration plan.
- Prior to implementation, funding sources and responsible entities for carrying out restoration should be secured.
- Prior to implementation, an explicit work plan should be developed, including schedules and budgets for site preparation, installation and post-installation actions.
- Practice adaptive management by developing strategies for revisiting implementation or performance standards if necessary. Identify an advisory team of experts to provide advice and direction.

MANDATORY BEST MANAGEMENT PRACTICES

STRESSORS

- Any stressors causing habitat degradation should be addressed prior to starting restoration.

PLANT MATERIAL

- Provide details regarding the planned source of their plant material. If the source is from more than ten miles away or from a completely different vegetation or geology, provide reasonable support for why that stock has been chosen.
- Special consideration should be given to sources of tree seed and other long lived species. In the case of oak trees, it is preferable to grow seedlings from acorns collected in the immediate project vicinity (within approximately two miles of the project site).
- All stock should be from plants within Counties in or adjacent to the SEA. Nurseries used to grow stock should also be within counties in or adjacent to the SEA to prevent spread of soil borne diseases and insect pests.
- Plant material used for habitat restoration purposes should consist of native species that are local to the immediate area of the mitigation site.
- All plant material proposed for use in a habitat restoration program should be inspected by a qualified biological monitor to ensure that all container plants are in good health and do not contain pests or pathogens that may be harmful to existing native plants or wildlife species.
- Container plants and other landscaping materials (including organic mulches) should be inspected to ensure they do not contain Argentine ants.
- Native seed mixes should be inspected by a biological monitor prior to their application to ensure that they contain the proper species and that seed packages are in good condition and do not contain any pests or pathogens.
- Diseased or infested plant, seed, or landscape materials should be removed from the site and transported to an appropriate off-site green waste facility.

INVASIVE PLANTS

- Removal of non-native species in patches of native habitat shall be conducted in such a way as to minimize impacts to the existing native vegetation.

- Provide a clear description of how green waste will be handled.
- Use of chemical methods should be utilized only as a last resort.
- Any proposals for use of herbicide treatments should be accompanied by a plan that demonstrates:
    - that other methods of invasive species control have been tested, and that a single application of herbicide has been determined to be the best solution;
    - that there is a post application plan for revegetation and/or mulching; and
    - that the treatment is a one-time application.
- Preemergent herbicide should never be used, as it may affect rare species in the seed bank.

IMPORTED SOIL

- Imported soil shall be free of exotic invasive plant species and shall come from a local source.

IRRIGATION

- Use plugs rather than larger plants to reduce the need for irrigation during establishment in order to conserve water resources. This also helps plants establish new roots that are adapted to the soil in the ground, rather than having a large root mass adapted to the soil in the nursery pot.
- If irrigation is required, describe the plan to control annual weeds that might occur and thrive from the irrigation.

MULCH

- Mulch is the least harmful and most beneficial way to prevent weeds, promote healthy soil, and help restore healthy organic material in the soil. One application of mulch can promote storage of large amounts of carbon in soils for years to come, helping with global climate change. It prevents water loss up to 30%. Almost all native habitat, outside of some desert ecosystems, have deep layers of organic material near trees and shrubs, keeping their roots cool and preventing evaporation.
- An area for native bee nesting without mulch can be set aside and marked. Monthly weeding will be necessary in this area until native plants can be established.

SCHEDULE

- Provide details regarding the planned schedule. Establishment of restoration/revegetation sites should be conducted during the appropriate time of year (between October 15 and January 30 for most projects), with planting and/or seeding occurring immediately after the restoration sites are prepared.

MAINTENANCE PLAN/GUIDELINES

- Provide a Maintenance Plan that includes (1) weed control, including cleaning of equipment to prevent further spread or introduction of new weeds; (2) herbivory control; (3) trash removal; (4) irrigation system maintenance; (5) maintenance training; and (6) replacement planting.

SIGNAGE AND FENCING

- If necessary, the restoration plan should include specifications on fencing to protect biological resources and restrict human access.
- Signage specifications should be developed to indicate the site is a restoration/preserve area and to either indicate that trespassing is not allowed or to instruct visitors to stay on trails if public access is allowed.

CHAPTER 8. NATURAL OPEN SPACE

The SEA Ordinance requires preservation of natural open space to offset impacts to SEA Resources by proposed development. Additionally, the SEA Ordinance requires new development to be set back an adequate distance from existing protected natural open space areas to ensure that required defensible space where vegetation must be thinned or cleared for fire protection will not extend onto the adjacent protected natural open space.

Many wildlife species, particularly carnivores and other wide-ranging species require large areas of suitable habitat for genetically and demographically viable populations. In addition, large contiguous blocks of habitat are more likely to encompass diverse habitat types and are more easily buffered from potential impacts from surrounding developed lands. Most SEAs contain large blocks of habitat generally conforming to a significant topographical feature such as a watershed, major river, butte, etc. These habitat blocks are referred to as "core habitats." Protecting natural open space (i.e., undeveloped land) within and adjacent to or near these large patches will maintain valuable protected core habitats, which, in turn, can protect larger wildlife populations and potentially generate a greater diversity of species and communities.

CONFIGURATION AND USE

To meet the requirements of the SEA Ordinance, preserved open space must be maintained in its natural undeveloped condition. To the greatest extent possible, natural open space should be configured into one contiguous area and be clustered with other natural open space areas on adjacent parcels. Conservation easements should not be drawn to conflict with other existing easements, as the objective is for habitat and biological protection.

No removal of trees or vegetation or other disturbance to natural features is allowed in these areas, unless the activity is approved by the Director prior to the disturbance (for instance, if it is written in as an acceptable use in the deed restriction, covenant, or conservation easement approved by the Department). The following are uses that may be deemed acceptable in preserved natural open space:

1. disease control and/or control of invasive species;
2. habitat restoration;
3. paths or trails constructed and maintained to minimize environmental impact to the area (for instance, to restrict recreational use into a single path);
4. wildlife permeable fences constructed and maintained to minimize environmental impact to the area (for instance, to keep trail users from crossing into sensitive habitat areas);
5. fire protection, when determined by the County Biologist to be compatible with the SEA Resources being preserved; or
6. activities intended to maintain a specific habitat condition, which may include animal grazing, when recommended by the County Biologist. Such activities must be detailed in a management plan to be reviewed by the County Biologist and approved by the Department.

Driveways, streets, roads, or highways are prohibited from crossing through natural open space areas. If the Hearing Officer or Commission determines that a driveway, street, road, or highway must transverse natural open space in order to ensure adequate circulation or access, it may not be counted as a portion of the total required natural open space to be preserved (i.e. the area occupied by the road must be subtracted from the total area of open space). Additionally, any such driveway, street, road, or highway must be

designed to include any and all necessary wildlife crossings and/or other features necessary to avoid biological impacts.

Natural open space preservation as mitigation must be satisfied prior to the issuance of a grading permit. The applicable preservation mechanism must be recorded with the Registrar-Recorder/County Clerk before issuance of a grading permit. In order to meet this requirement, the natural open space preservation for subdivision projects will be recorded separately from the final map.

REQUIREMENTS FOR MINISTERIAL SEA REVIEW

Development approved through a Ministerial SEA Review that has impacts to SEA Resource Categories 2, 3 or 4 are required to preserve the corresponding amount and type of SEA Resources within the project site parcel(s), as shown in TABLE 4 below. Development undergoing Ministerial SEA Review should have been vetted during SEA Counseling to ensure the project site parcel(s) contain appropriate preservation area(s) outside of the development footprint. Natural open space areas to be preserved cannot be located within any mandated fuel modification or brush clearance zones, or include any portion of a driveway, street, road, or highway.

On-site natural open space will need to be depicted on the approved site plan. A draft of the deed restriction or covenant should be submitted with the application materials for Department review prior to recordation. The natural open space covenant or deed restriction must then be recorded with the County Recorder's Office and a copy of the recorded document must be submitted to the Department prior to receiving the stamped site plan, along with a digital delineation of the boundary of the natural open space area (i.e. the boundary of recorded natural open space should be submitted in a GIS useable format such as .shp, .gdb, .kml/.kmz, .dwg, etc.)

TABLE 4. ONSITE PRESERVATION RATIOS FOR MINISTERIAL SEA REVIEW

SEA RESOURCE CATEGORY:	DISTURBANCE ALLOWED:	PRESERVATION RATIO:
1	none	N/A (need SEA CUP)
2	≤ 500 sq ft	2:1
3	≤ 500 sq ft	1:1
	> 500 sq ft	2:1
4	≤ 5,000 sq ft	none
	> 5,000 sq ft	1:1
5	any amount	none

ALLOWABLE MECHANISMS

On-site preservation of natural open space, as required per (Section 22.102.090.A), must be provided through a permanent deed restriction or land use covenant between the County and the property owner. Both mechanisms are recorded with the County Recorder's Office and should include a map exhibit of the natural open space area. Any area recorded as natural open space for this purpose must be left in its natural state.

EVALUATING THE ACCEPTABILITY OF ON-SITE PRESERVATION

There may be fewer opportunities to configure natural open space for projects undergoing Ministerial SEA Review. In many cases, the BCM will have already identified all the areas that can be preserved on-site with no excess of natural open space available for preservation. In cases where there is an excess of area available for preservation, the preserved area should be configured to minimize fragmentation and maintain

the largest possible area-to-edge ratio (i.e., by using the shortest possible perimeter length).[29] Any existing adjacent preserved open space areas should also be considered, and new open space should be configured to compliment and buffer existing off-site open space by connecting to it via the widest possible path.

REQUIREMENTS FOR SEA CUP

Developments applying for a SEA CUP are required to provide preserved natural open space as mitigation. For SEA CUPs, the amount of natural open space to be required is considered mitigation and is not tied to the ratios in the Development Standards, nor is it required to be preserved on-site. Any and all mitigation must require like-for-like components for compensation. Soils, slope, topography, aspect, range, growing conditions, and habitat type must all match between development and mitigation sites and all must be within the same SEA.

The natural open space preservation requirement for SEA CUPs is dependent on the amount of proposed development, degree of impact, type and quality (e.g. intactness) of SEA Resources being disturbed, location, and setting of those SEA Resources, and the project's ability to address the SEA Findings. The preservation ratios listed in **TABLE 5** below will be utilized as a general guideline.

ON-SITE PRESERVATION FOR SEA CUP

To evaluate the appropriate location and mechanism for preserved natural open space, Staff will first need to determine whether an adequate amount of suitable habitat is present on-site. Projects that do not have an adequate amount of suitable habitat available to protect on-site will need to provide any necessary natural open space preservation off-site, through one of the mechanisms discussed in the "Allowable Mechanisms" section below.

If it is determined that a suitable area of quality natural habitat occurs on the project site parcel(s), the area should be described in the Biota Report, depicted on site plans, and, if found to meet the mitigation needs of the development, recorded as permanent natural open space through one of the allowed mechanisms discussed below. Any area recorded as natural open space for this purpose must be maintained in its natural undeveloped state, with no removal of vegetation or disturbance of natural features.

When determining the suitability of habitat for on-site preservation, the following attributes should be considered:

- is it outside of all mandated fuel-modification and brush clearance zones?
- does it encompass any hydrological features?
- does it contain sensitive SEA Resources (e.g. Categories 1-3)?
- does it include any habitat restoration areas required as project mitigation?
- does it include sufficient low to moderate value habitat to buffer higher value habitats and elements from indirect impacts from developed areas?
- what is the extent of on and off-site habitat connectivity?

[29] Area-to-edge ratio refers to the compactness of an area. A circle has the maximum area-to-edge ratio of any shape since it has the minimum possible perimeter length. Long, narrow shapes, or shapes with convoluted boundaries have low area-to-edge ratios. Shapes with high area-to-edge ratios are preferable in biological conservation because elements within the interior of the area have a greater likelihood of being far from the edge and are therefore less vulnerable to indirect impacts from development (invasive species, runoff, domestic animals, etc.).

- ❖ is it part of a wildlife corridor, does it function as a buffer, or is it integral to a watershed?

Natural open space should be planned in such a way as to create the maximum amount of habitat connectivity between on-site and off-site areas and to encompass the maximum amount of diversity in type, function and structure of habitats. Whenever possible, natural movement pathways should be protected.

Although large blocks of habitat are generally better than smaller ones, there are cases when smaller patches or ribbons of habitat are vital to preserving wildlife movement or the long-term viability of SEA Resources. For instance, small patches of habitat may be useful as stepping-stones through a developed landscape, or a constrained movement pathway may provide the last tenuous connection between two larger patches of habitat. The loss of such connections may mean cutting off wildlife movement through that landscape. In such cases, it may be preferable to preserve the small patches or ribbon of natural habitat.

"Added value" can be given to proposed natural open space areas if they also contain unique or valuable habitat linkage resources, additional special-status species, surface waters, or sensitive habitats, etc. Proposed open-space with such added-value characteristics may be allowed to be smaller than the area that would typically be required and still be determined to be consistent with the SEA Program goals, subject to the discretion of the Department and a determination of consistency with the SEA Findings by SEATAC.

TABLE 5. RECOMMENDED* PRESERVATION RATIOS FOR SEA CUP

SEA RESOURCE:	PRESERVATION RATIO:
CATEGORY 1 - State or federally listed species and their habitats - CA Rare Plant Ranks 1,2,3 - Natural Communities Ranked G1/S1 - Water Resources (e.g. wetlands, streams, ponds, lakes, vernal pools, marshes, etc.) **BEACH & DUNE**	5:1
CATEGORY 2 - Natural Communities Ranked G2/S2 - Species of Special Concern and their habitats	4:1
CATEGORY 3 - Natural Communities Ranked G3/S3 - Oak Woodland - Sensitive Local Native Resources **ROCK OUTCROPS/ROCKLANDS**	3:1
CATEGORY 4 - Natural Communities Ranked G4/S4/G5/S5 - CA Rare Plant Rank 4 **NON-NATIVE GRASSLANDS**	2:1
CATEGORY 5 - Wildlife linkage or corridor or Open space buffer	1:1

* Ratios are provided as a starting point. With a discretionary CUP, these ratios can be changed based on site specific factors and SEATAC recommendations, to the satisfaction of the Hearing Officer or Commission.

OFF-SITE PRESERVATION FOR SEA CUP

Developments that do not have suitable habitat available for natural open space preservation on-site will be required to provide an equivalent amount of natural open space preservation off-site. This can be accomplished through one of the mechanisms discussed below. All off-site natural open space preservation will be reviewed by Department Staff in order to verify that it meets the project's mitigation requirements.

The following information should be submitted for review:

- a map of the proposed off-site area (similar to a BCM);
- a description of the biological resources of the proposed off-site area (similar to a BCA);
- a description of the mechanism to be used for preservation; and
- a management plan for the proposed preserved area, including a Habitat Mitigation and Monitoring Program (HMMP) if habitat restoration is required, which identifies responsible parties, funding mechanism, restoration methods, performance standards, and reporting requirements for restoration projects.

Off-site preservation shall be sited within or contiguous with the same affected SEA, and preferably within the same watershed. An area immediately adjacent to the SEA may be considered if the applicant can demonstrate that the area supports the same resource values and is connected with other natural open space. Preserved areas should be configured to:

- have sufficient self-buffering capacity,
- be situated adjacent to other natural open space areas, and
- support resources similar to those disturbed by the project and in the proper ratios.

"Added value" can be given to proposed open-space lands if they also contain unique or valuable habitat linkage resources, additional special-status species, surface waters, or sensitive habitats, etc. Proposed open-space lands with such added-value characteristics may be smaller than the area required by standard preservation ratios and still determined to be consistent with the SEA Program goals, subject to discretion of the Planning Department and a determination of consistency with the SEA Findings by SEATAC.

ALLOWABLE MECHANISMS

Following are the acceptable mechanisms for preserving natural open space to meet SEA CUP requirements. The mechanisms are ranked in order of preference by the County. The applicant will have to demonstrate that higher ranked mechanisms are infeasible or of less benefit in order to use an option lower down on the list. For instance, in-lieu fees are of lowest preference, so the applicant will need to show that the six previous mechanisms are infeasible or of substantially lower biological value than the in-lieu fee proposed for the project.

DEDICATION TO ACCREDITED LAND TRUST OR GOVERNMENT ENTITY

Land to be protected as natural open space may be transferred to an accredited land trust or government entity that has the capacity to protect and manage the land as natural open space. The acquisition of the land (fee title or fee simple) allows the conservation owner to manage the property to preserve and protect its conservation values. The land can be acquired by purchase, donation or a combination of the two.

Any land being transferred to a non-profit organization or government entity for the purpose of mitigation for a SEA CUP must first record an open space restriction or easement over the entirety of the natural open space area prior to transfer of ownership in order to ensure the preservation of the natural open space in perpetuity.

CONSERVATION OR MITIGATION BANK

Conservation and mitigation banks provide a streamlined and predictable off-site compensatory mitigation program that can be of benefit to public and private developers, while incentivizing the protection and management of the most critically important areas within SEA boundaries. These "banks" are lands that are permanently protected and managed specifically for their natural resource values. In exchange for permanently protecting, managing, and monitoring lands that hold important resources (e.g. wetlands, endangered or threatened species, and supporting habitats), the bank sponsor (owner) is allowed to sell or transfer a specified number of habitat or species credits to project developers to offset the adverse impacts of their projects.

Conservation and mitigation banks are regulated and approved by certain state and federal agencies that are tasked with protection of natural resources (such as CDFW, USFWS, Army Corps of Engineers, Natural Resources and Conservation Service, National Marine Fisheries Service, US Environmental Protection Agency, etc.). Mitigation banks are generally formed to protect, restore, create, and enhance wetland habitat, and credits are sold for mitigation of unavoidable wetland losses. Conservation banks are targeted more toward protecting threatened and endangered species and habitat, with credits established for the specific sensitive species and habitat types that occur on the site. Although a bank may be established to protect a specific species or water resource, adjacent areas of supporting habitat are generally also included in the mitigation bank.

Currently there is only one conservation bank in LA County; however, the formation of new conservation or mitigation banks, especially within SEAs, is encouraged. For a proposed development within a SEA to utilize a conservation or mitigation bank for their development, the bank must be within the same SEA.

To learn more about mitigation banks, visit the CDFW website on Conservation and Mitigation Banking: www.wildlife.ca.gov/Conservation/Planning/Banking. For CDFW approved mitigation banks see: www.wildlife.ca.gov/conservation/planning/banking/approved-banks#r4.

CONSERVATION EASEMENT

A Conservation Easement is a legal agreement between a landowner and an accredited land trust or government agency in which the land owner places certain restrictions on their property in order to permanently limit the uses of the land in order to protect its conservation values. The land trust or government agency[30] that accepts the easement is responsible for monitoring the easement to ensure

[30] California Civil Code 815.3 defines qualified entities as: a) A tax-exempt nonprofit organization qualified under Section 501(c(3) of the Internal Revenue Code and qualified to do business in this state which has as its primary purpose the preservation, protection, or enhancement of land in its natural, scenic, historical, agricultural, forested, or open-space condition or use. b) The state or any city, county, city and county, district, or other state or local governmental entity, if otherwise authorized to acquire and hold title to real property and if the conservation easement is voluntarily conveyed. No local governmental entity may condition the issuance of an entitlement for use on the applicant's granting of a conservation

compliance with the terms of the easement and to enforce the terms if violation occurs. Land trusts may be accredited through the Land Trust Accreditation Commission, an independent program of the Land Trust Alliance, or an equivalent program.

Conservation Easements are one of the most frequently used tools for conserving private land. They are used to permanently limit uses (on all or a portion of the property) that would compromise the conservation values of the property, while allowing the landowner to retain certain reserved rights.

As with a deed restriction or covenant, a Conservation Easement is attached to the property's deed and recorded with the County. It is granted in perpetuity, meaning that all future owners of the land must respect the uses set forth in the document. Natural open space preservation required per the SEA Ordinance may be provided through a Conservation Easement, either on-site or off-site (but still within the same SEA).

PERMANENT ON-SITE DEED RESTRICTION

A deed restriction is a land use restriction that is added to the title of a property. It restricts the use of the property, and for the purposes of the SEA Ordinance, it can be used to ensure that an area of land is preserved as natural open space in perpetuity. Properly worded and recorded deed restrictions apply to all future owners of the property and cannot be easily changed or removed. To meet the SEA Ordinance natural open space requirements, the property owner may place a permanent open space deed restriction on the approved area of their property. The project cannot be approved until the restriction is filed with the Registrar-Recorder/County Clerk.

COVENANT BETWEEN COUNTY AND PROPERTY OWNER

A covenant or "Covenants and Agreements" is a formal agreement or contract between the County and the property owner, in which the property owner gives the County certain promises and assurances, such as for the purpose of providing and recording an open space restriction over an area of land. The covenant obligates the owner to maintaining the specified area as natural open space, for a specified period of time. In order to meet the natural open space preservation requirements of the SEA Ordinance, the covenant must be permanent and properly worded to ensure the land is preserved in its natural, undeveloped condition. As with a deed restriction, the covenant runs with the land and is binding on all current and future owners of the property. If this mechanism is selected, the open space covenant must be filed at the County Recorder's Office prior to final permit approval.

CONSERVATION IN-LIEU FEE

Conservation in-lieu fees are another approach to fulfilling mitigation requirements and can be a source of funding for a natural resource management entity to purchase conservation land or Conservation Easements. This is a fee that is provided by a project developer to a mitigation sponsor, such as a natural resource management entity, in lieu of providing required compensatory mitigation. The in-lieu fee is then intended to be used to acquire the required mitigation land or Conservation Easement. In-lieu fees may be

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easement pursuant to this chapter. c) A federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the Native American Heritage Commission to protect a California Native American prehistoric, archaeological, cultural, spiritual, or ceremonial place, if the conservation easement is voluntarily conveyed.

pooled with other in-lieu fees to create one or more sites to compensate for the resource functions lost as a result of development.

In order to meet the natural open space requirements of the SEA Ordinance, in-lieu fees must be used for the purpose of preserving specific SEA Resources (as determined by those impacted by the proposed development) within the same SEA. A nexus study must be prepared, and provisions should be made to ensure that the fee is regularly updated in response to changes in real estate values. The in-lieu fee should include costs associated with providing the required mitigation, including the cost of the land or Conservation Easement, cost of identifying and negotiating for the land or easement, surveys, appraisals, title research, legal review, preparation of documents, etc.

CHAPTER 9. SEA PROGRAM MONITORING

The Conservation and Natural Resources Element of the General Plan identifies strategies for the preservation of natural resources. Specifically, *C/NR-1 SEA Preservation Program*[31] includes strategies such as establishing a Transfer of Development Rights Program, Habitat Conservation Plan, Mitigation Land Banking Program/Open Space Master Plan, or Open Space Land Acquisition Strategy. To maintain and sustain the SEAs, and to evaluate the applicability of these programs, monitoring disturbance to and protection of SEA Resources is needed. Monitoring will also allow the County to better work with partner organizations interested in permanently conserving the SEAs.

The effects of climate change will also be clearer through the County's monitoring of SEAs. Some of these concerns include the need to preserve ecosystems that can continue to support the biodiversity of the County despite future changes in temperature and precipitation and increased hazards from wildland fires. SEAs contain evolving biological resources that occur in places at risk from development pressures and climate change. To ensure the continued effectiveness of the SEA Program, the following monitoring practices shall be implemented:

1) Tracking approved development within SEAs;
2) Tracking habitat restoration within SEAs;
3) Mapping habitat information collected through the permitting process; and
4) Mapping natural open space protection resulting from approval of projects.

TRACKING APPROVED DEVELOPMENT

As part of case processing, information from applicants and public agencies proposing to develop in SEAs will be collected, including information on land use and impacts to SEA Resources. Such information will be compiled into a Countywide SEA database, which will be used for tabulating types and amounts of approved development within each SEA.

TRACKING HABITAT RESTORATION

Projects proposing habitat restoration either as mitigation or as an independent project will be tracked utilizing information collected during case processing or Habitat Restoration Review. Information to be compiled includes the location, size, and type of restoration being carried out in each SEA.

MAPPING SEA RESOURCES

A Biological Constraints Map (BCM) is required before most development can occur within a SEA. As part of the application package, the applicant will be required to submit their BCM data to the Department in digital form[32] to be integrated into the SEA Resource database. The data acquired in this manner will allow the Department to more accurately map habitat information within unincorporated County SEAs. In instances where further assessment of sensitive biological resources is needed, a more in-depth Biological

[31] planning.lacounty.gov/assets/upl/project/gp_final-general-plan-ch16.pdf
[32] Map or site plan data displaying SEA Resources, preserved open space, and development footprints must be submitted in a GIS useable format such as .shp, .gdb, .kml/.kmz, .dwg, etc.

Constraints Analysis could be required. In such cases, submittal of final SEA Resource map data will be required as a condition of approval.

MAPPING PROTECTED OPEN SPACE

With the adoption of the SEA ordinance update, the County will embark on an effort to map protected open space in the unincorporated Los Angeles County. For this effort, any open space area that has legal protections through a permanent on-site deed restriction, conservation easement, conservation or mitigation bank, or dedication to a government entity or non-profit land conservation organization, as described in the Ordinance, will be considered "protected open space." With this information, it will be possible to illustrate the extent to which the SEA Program is meeting the County's overall goal to develop *permanent, sustainable preservation of genetically and physically diverse biological resources and ecological systems* (Los Angeles County General Plan Goal C/NR 3).

Starting with the California Protected Areas Database (CPAD), California Conservation Easements Database (CCED), and other open space geographic databases maintained by state and local organizations, the Department will establish a baseline of existing protected open space in the unincorporated County (including federal, state, and county owned open space and Conservation Easements monitored by land trusts). The resulting Open Space Database will include polygons of each recorded open space area with corresponding information such as date of adoption, type of protection, size, and ownership.

Protected open space will be monitored as follow:

1. The Department will integrate all newly dedicated open space associated with permits in SEAs into the Open Space Database. Data for new open space dedicated in this manner will also include project and permit numbers and will link to the public record(s) for the associated project.
2. The Department will identify resources to review previously approved projects in SEAs that included protection of open space as mitigation and incorporate those areas into the Open Space Database.
3. The Department will also track in-lieu fees and contributions to mitigation banks associated with SEA CUPs. In the case of in-lieu fees, the County Biologist will review and approve where the fees are used[33], and any resulting new protected open space will be included in the Open Space Database.

REPORTING REQUIREMENTS

1. General Plan Annual Report

The County is required to prepare a general plan annual progress report on the status of General Plan implementation. The annual report is prepared by the Department and presented to the Regional Planning Commission and the Board of Supervisors. The annual report is the County's mechanism for comprehensively reporting on the following: 1) program implementation; 2) effectiveness of major policies; 3) updates to datasets; and 4) map maintenance.

[33] In-lieu fees should be designated for use within the same SEA as that in which the associated development is located.

For the SEAs, the General Plan report is given biennially on the status of the County's SEAs and is required to include:

- A summary of new development within SEAs approved by DRP;
- A public comment process for accepting suggestions on improving the SEA Program, and its components;
- The overall status of biological functions within each SEA, if known;
- Identification of any new techniques or methods of conservation planning which are, or could, be utilized to enhance the SEA Program;
- Assessment of the necessity for new SEA studies and any resulting scientific studies undertaken on SEAs;
- Recommendations for any modifications to the SEA Program, including General Plan goals and policies, SEA boundaries and the SEA Ordinance;
- Identification of lands within individual SEAs as priority habitats or areas for protection;
- A description of any ongoing partnerships with conservation agencies and other stakeholders;
- A current map of SEA lands that are protected in perpetuity through deed restrictions, Conservation Easements, etc.; and
- The Director's conclusion as to the overall successes and challenges of the SEA Program in implementing General Plan goals and policies.

2. Sustainability Plan Indicator

The County's Chief Sustainability Office is in the process of preparing the first sustainability plan for the entire County. One of the important indicators for sustainability identified for the Plan is the health of the County's SEAs. In addition to communicating the status of the SEA Program through the General Plan Annual Report, the County's Sustainability Plan will be another avenue for reporting on the health of the SEAs.

3. SEA Website

The Department will be updating the SEA webpage housed within the Department's website to digitally provide information as information is gathered and mapped.

CHAPTER 10. REVIEW PROCEDURES FOR COUNTY PROJECTS

The SEA Program is a component of the County's General Plan, which provides the policy framework for how and where the unincorporated Los Angeles County will grow through the year 2035. As a leader in sustainability, the County will assess infrastructure projects that may have impacts to SEA resources when the development is located partially or entirely within a mapped SEA. This SEA assessment process for County projects within SEAs will ensure that the proposed activities sustain species populations and ecological services into the future through environmentally sensitive site design. This process will allow for the appropriate level of compliance with the least amount of impacts to the maintenance, operation, and future development of those facilities.

GENERAL COUNTY DEPARTMENT SEA ASSESSMENT PROCESS

County Departments that propose activities defined as development within a mapped SEA are encouraged to participate in the SEA assessment process. Similar to private development, SEA review for County Departments is intended to assist in avoiding or minimizing impacts to SEA Resources. Development that is covered under a County master plan that is undertaken by private entities, such as construction of County master planned highways and master planned trails, should be submitted by the appropriate County Department for review as a County Project.

General Review Process

The County Department may use Regional Planning's online GIS application, or contact Regional Planning staff, to determine if a proposed ground disturbing activity will be within a mapped SEA. If so, the project manager at the County Department should contact Regional Planning at sea@planning.lacounty.gov to initiate a consultation of the proposed activity.

At the end of the initial review of the proposed activity, the County Biologist will issue a recommendation letter which determines the following:

a. need for any additional biological surveys to identify SEA Resources or evaluate the full extent of impacts;
b. need for SEATAC consultation regarding impacts of proposed activities and/or appropriateness of proposed mitigation;
c. ability of the proposed activity to maintain prescribed setbacks as described within the SEA Development Standards; and
d. compatibility of the proposed activity with the SEA Program.

Review of Emergency and Hazard Management Activities

Ground disturbing activities in response to an emergency or for hazard management should be documented and communicated to Regional Planning. Following an emergency or hazard management activity, additional consultations may be initiated between County departments to address how to better coordinate and approach future similar activities or situations, or to discuss appropriate mitigation of impacts to SEA Resources, if needed. In these instances, the County Biologist will issue a recommendation letter, which may include recommendations for:

a. additional consultations with SEATAC to determine appropriate mitigation for impacts to SEA Resources; or
b. actions that could be taken in a future similar situation to avoid or minimize impacts to SEA Resources.

NOTIFICATION OF DEVELOPMENT ACTIVITY

In addition to the general County Department SEA assessment process, County Departments may notify Regional Planning regarding activity within a mapped SEA on a project by project basis. The purpose of reporting development which may not need further review is to understand and disclose regular maintenance projects by County Departments that are in or adjacent to natural portions of the SEA which may potentially impact the SEAs, and to gain an understanding of this development. It is anticipated that development in this category could be moved to Activities Exempt from Review and Notification in future iterations of this guide.

DEPARTMENT OF PARKS AND RECREATION (DPR)

Unless constructing new structures or grading within natural portions of a SEA, all maintenance, construction and other regular activities necessary to meet the standard operational needs at DPR facilities shall be exempt from SEA assessment. When a development project does involve significant removal of natural vegetation within a SEA, the DPR project manager will contact Regional Planning at sea@planning.lacounty.gov to initiate a consultation, providing the following information:

1. project location
2. project scope or description
3. site plan
4. any photographs of the site.

If necessary, a site visit meeting with the County Biologist will be scheduled.

In response to this review, the County Biologist will issue a letter which determines the following:

- ❖ The compatibility of the proposed development activity with the SEA Development Standards and Findings, if applicable.
- ❖ Whether additional review through SEATAC is recommended to determine appropriate SEA Resource mitigation, when needed.
- ❖ Whether additional biological information is needed to provide further recommendations.

DPR ACTIVITIES EXEMPT FROM SEA ASSESSMENT AND NOTIFICATION

DPR will not need to notify Regional Planning of the following types of activities: 1) those that occur within already disturbed areas and will not result in expanded environmental impacts to the natural portions of SEAs, 2) those that are for the maintenance and operation of existing facilities, or 3) those that are for emergency or hazard management response.

Maintenance and operational activities include, but are not limited to:

a. maintenance of existing landscaping including mowing and tree trimming;
b. new landscaping and related irrigation;

c. brush clearance;
d. parking lot repair;
e. health and safety related work such as slope repair and hazard removal;
f. ADA compliance (path of travel, parking lot, restroom upgrades, etc.);
g. Irrigation, plumbing, mechanical (HVAC) and electrical repairs;
h. concessionaire maintenance and operational activities;
i. temporary events (renaissance Faire, concerts);
j. lake maintenance and remediation;
k. ongoing upkeep, repair, rehabilitation, or reconstruction (in kind) of existing structures and facilities (park offices, gymnasiums, storage, restrooms, visitor centers, community centers, nature centers, sports fields, aquatic centers, etc.);
l. addition to existing buildings and structures;
m. installation of accessory structures, such as shade structures, picnic tables and benches, BBQ grills, play structures, fitness equipment, outdoor classroom, lighting, signage, fencing, etc.;
n. grading that does not extend beyond previously disturbed areas;
o. vegetation control that does not extend beyond previously disturbed areas; and
p. trail maintenance.

Emergency and Hazard Management Activities

Activities which are for either emergency response or hazard management (such as fire, flood, or earthquake damage, etc.) are also exempt from prior notification and review, if time constraints would not allow for such review. These types of activities shall be reported to Regional Planning after they have taken place. Additional discussion may take place, if needed, to identify proper mitigation of impacts when needed.

DEPARTMENT OF PUBLIC WORKS (DPW)

DPW development activities such as construction of new facilities or roads located in undeveloped portion of SEAs, which are not exempt under emergency activities, will be submitted for a SEA assessment by Regional Planning during the preliminary planning stages. Maintenance projects or other cash contracts, which occur within a SEA and require the discretionary action of the Board of Supervisors, will also be submitted to Regional Planning for SEA assessment. The DPW project manager will contact Regional Planning at sea@planning.lacounty.gov to initiate a consultation, providing the following information:

a. project location map,
b. project scope of work,
c. environmental documents, if available,
d. regulatory permit requirements, and
e. any photographs of the site.

If necessary, a site visit meeting with the County Biologist will be scheduled.

In response to this review, the County Biologist will issue a letter which determines the following:

- The compatibility of the proposed development activity with the SEA Development Standards and Findings, if applicable.

- ❖ Whether additional review through SEATAC is recommended to determine appropriate SEA Resource mitigation, when needed.
- ❖ Whether additional biological information is needed to provide further recommendations.

DPW Activities Exempt from SEA Assessment and Notification

DPW will not need to notify Regional Planning for the following types of activities, which are exempt from SEA assessment and notification: 1) development required immediately in emergency situations to protect buildings, infrastructure or human life, 2) development that occurs at the site of manmade areas that are already disturbed and will not constitute expanded environmental impacts to the natural portions of the SEA, and 3) activities that are for the maintenance and operation of existing facilities,

Maintenance and operational activities include, but are not limited to:

a. replacement of headwalls at culvert entrance/exit,
b. replacement of rock rip-rap along the bank of a stream to protect/prevent roadway from erosion/failure,
c. removal of accumulated sediment and/or vegetation as preventative maintenance on streams at bridges or culverts,
d. shoulder grading that extends beyond the public right-of-way,
e. vegetation control that does not extend beyond previously disturbed areas or the public right-of-way,
f. removal of sloughage, slide material, and debris,
g. repair and reconstruction (in kind) of existing retaining walls,
h. inspection, repair, and replacement (in kind) of existing bridge elements,
i. proactive sediment, rock, and vegetation removals under bridges as preventative maintenance,
j. repair, reconstruction, or construction of new rail and timber walls,
k. repair, reconstruction, or construction of new retaining walls

Other projects which may be exempt from initial review are Non-emergency activities routinely carried out by Public Works to maintain operational capabilities of Public Works' and Flood Control District's facilities. Unless an existing facility will be constructing new structures in natural portions of the SEA, all the maintenance, construction and all other regular operational needs at Public Works and Flood Control District facilities shall be exempt from initial review. This exemption also includes activities in the right-of-ways for roads and floodways. These activities may include, but are not limited to:

a. pavement maintenance (crack sealing, chip sealing, slurry seal, patching, resurfacing),
b. shoulder grading that does not extend beyond previously disturbed areas,
c. vegetation control that does not extend beyond previously disturbed areas,
d. tree trimming,
e. repair or replace existing guardrail,
f. inspection and cleaning of drainage facilities,
g. cleaning beach drains and clearing existing access roads,
h. repair and reconstruction (in kind) of existing retaining walls if within previously disturbed areas,
i. inspection, repair, and replacement (in kind) of existing bridge elements that do not require encroachment into the streambed,
j. repair and reconstruction of rail and timber walls that does not extend beyond previously disturbed area, and

k. ongoing upkeep and repair at structures and facilities within SEAs, as marked on the SEA Development Map.

EMERGENCY AND HAZARD MANAGEMENT ACTIVITIES

Ground disturbing activities which are for either emergency response or hazard management are also exempt from prior notification and review, if time would not allow for such review. These types of activities shall be notified to Regional Planning after they have taken place. Additional discussion may take place, if needed, to identify proper mitigation of impacts when needed. Mitigation of these areas disturbed will be treated as "Development subject to notification and review".

An emergency activity may be defined as any activity necessary to restore operational capabilities of public facilities or activities necessary to protect human lives and properties after a major disaster event, such as earthquakes, flooding, fires, etc. In the event that emergency activities include construction of new facilities, a brief project scope of work and location map will be shared with Regional Planning after the fact. These activities may include, but are not limited to:

a. replacement of failed culvert pipe,
b. construction of corrugated metal pipe risers after wildfires,
c. restoration of failed road segment following a flood,
d. removal of accumulated sediment, rock, and/or vegetation on streams under/at bridges or culverts if causing stream to flow on roadway,
e. construction of debris trash racks, or
f. placement of rock rip-rap along the bank of a stream to protect the roadway from erosion/failure.

NOTIFICATION OF DEVELOPMENT IN SEAS:

DPW will notify Regional Planning of any proposed development within or partially within a mapped SEA on a project by project basis. Further communication between DPW and Regional Planning may also include discussion of appropriate best practices for regular activities in SEAs, recommendations from SEATAC, and overall development activity within SEAs.

DPW's notification shall consist of:

- An Assessors Property Number (APN) for the parcel or parcels affected
- A brief description or name of the type of development (for example: tree removal, construction of a storage building, road maintenance, etc.)
- The anticipated completion date for the development.
- The person or division to contact for information about the development.

This information shall be maintained in an excel table or GIS shapefile, and submitted to Regional Planning.

GLOSSARY

Alliance: a vegetation classification unit that is usually defined by a dominant and/or characteristic plant species in the upper layer of vegetation.

Association: a vegetation classification unit defined by the characteristic species in the overstory (upper layer) and understory (lower layer), as well as environmental factors.

Building pad: a building site prepared by artificial means including grading, excavation or filling, or any combination thereof.

Building Site Area: the portion of the development footprint that is or will be graded, paved, constructed, or otherwise physically transformed, including the building pad, all graded slopes, areas impacted by exploratory testing, all structures, decks, patios, impervious surfaces, retaining walls, and parking areas. To calculate~~d~~ the area of the proposed building site, include the building pad, all graded slopes, all structures, decks, patios, impervious surfaces, and parking areas~~. T~~the applicant may exclude the following development associated with the primary use:

- The area of one access driveway or roadway that does not exceed 300 feet in length and 20 feet in width, and is the minimum design necessary to meet Los Angeles County Fire Department requirements;
- The area of one turn-around that is not located within the approved building pad, and is the minimum design necessary to ensure safety and comply with Fire Department requirements;
- Graded slopes exclusively associated with the access driveway or roadway and safety turn-around indicated above; and
- Fuel modification and brush clearance required by Los Angeles County Fire Department for approved structures.

Chaparral: broadly defined as an area dominated by tall woody shrubs two meters and taller, which can be further classified to the alliance or association level utilizing *A Manual of California Vegetation* by Sawyer, Keeler-Wolf, and Evens, available online at www.cnps.org/vegetation.

Covenant: a formal agreement or contract between LA County and the property owner, in which the property owner gives the County certain promises and assurances, such as for the purpose of providing and recording an open space restriction over an area of land.

Crops: cultivated plants including field, tree, bush, berry, and row, including nursery stock

Cumulative impact: the incremental effects of an individual project in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Deed restriction: a limitation in the deed to a property that dictates certain uses that may or may not be made of the property.

Defensible space: in firefighting and prevention, an area of non-combustible surfaces separating urban and wildland areas, which is often utilized around residences in remote and/or high fire hazard areas to give firefighters additional time to reach the residence in the event of a wildfire.

Development footprint: the area of disturbance for development, including but not limited to, the building pad, all structures, driveways and access, fire department turn-arounds, grading, test pits, septic systems, wells, fuel modification areas, and any direct habitat disturbances associated with the development.

Disturbed area: any portion of land or vegetation that is altered in any way by development, by the actions associated with development, or by use, whether intentional or unintentional, permitted or unpermitted.

Easement: a civil agreement between two parties which is used as a method of acquiring partial use rights of land with no transfer of fee title. A limited right to make use of a land owned by another, for example, a right of way across the property.

Ecosystem: a community of animals, plants, and microorganisms and the physical and chemical environment with which it is interrelated.

Ecosystem functions: natural processes and attributes that result from the complex interactions between living organisms and the physical and chemical components of their ecosystems, which contribute to the self-maintenance of an ecosystem. Ecosystem functions are complex and dependent on a wide variety of factors, such as habitat type, geology, geography, climate, position in the watershed, surrounding land use, and associated plant and animal communities.

Ecosystem services: the benefits (goods and services) provided to humans as a result of ecosystem functions, such as clean air and water, erosion and sediment control, carbon storage, fertile soils, pollination, raw materials in the form of foods, biofuels, and medicinal resources, buffering against natural disasters, regulation of temperatures, and scenic views.

Edge effects: the effects of development on adjacent natural areas due to introduction of structures and non-native and/or non-local plants and animals. Structures change the microclimate or constitute barriers to movement. Introduced species displace native species or interact with natural processes and change conditions so that the native species are no longer well-adapted to the altered environment.

Encroachment: an intrusion, disturbance, or construction activity within the protected zone of a SEA Protected Tree.

Fragmentation: the process by which a landscape is broken into small islands of natural habitat within a mosaic of other forms of land use or ownership.

General Plan: a statement of policies, including text and diagrams setting forth objectives, principles, standards, and plan proposals, for the future physical development of the County required by California State Government Code 65300 et seq.

Geological feature: landform or physical feature, such as beach, dune, rock outcrop, and rockland, formed through natural geological processes.

Grading: any excavation, fill, movement of soil, or any alteration of natural landforms through a combination thereof.

Herbland: broadly defined as an area dominated by annual or herbaceous perennial species, including native and non-native grasslands, which can be further classified to the alliance or association level utilizing

A Manual of California Vegetation by Sawyer, Keeler-Wolf, and Evens, available online at www.cnps.org/vegetation.

Heritage tree: any SEA Protected Tree with a trunk diameter that measures 36 inches or more in a single trunk or with two trunks that measure a total of 54 inches or more in diameter, as measured 54 inches above natural grade.

Infrastructure: basic utilities and facilities necessary for development, such as water, electricity, sewers, streets, and highways

Invasive plants: plants that are not native to a region or ecosystem that, once introduced, tend to spread aggressively, disrupting native species occurring in the area, and even changing ecosystem processes such as hydrology, fire regimes, and soil chemistry.

Lake: a large naturally occurring body of water that is surrounded by land. A lake is formed due to pooling of surface-water runoff and/or groundwater seepage in a low spot relative to the surrounding countryside.

Land division: division of improved or unimproved land, including subdivisions (through parcel map or tract map), and any other divisions of land including lot splits, lot line adjustments, redivisions, mergers, and legalization of lots created unlawfully through the approval of a certificate of compliance or other means.

Landscaping: Any activity that modifies the visible features of an area of land through alteration of natural elements, such as altering the contours of the ground or planting trees, shrubs, grasses, flowers, and other plants.

Land Trust: A non-profit organization that actively works to conserve land by undertaking or assisting in land or conservation easement acquisition, and is responsible to ensure the applicable preservation mechanisms required by the SEA Ordinance for lands received and terms of the conservation easement are upheld through stewardship activities.

Marsh: a type of wetland dominated by grasses and other herbaceous plants where water covers the ground for long periods of time. There are many different kinds of marshes, ranging from coastal to inland and freshwater to saltwater. All types receive most of their water from surface runoff, and many marshes are also fed by groundwater.

Mitigation: actions or project design features that reduce environmental impacts by avoiding adverse effects, minimizing, rectifying, or reducing adverse effects, or compensating for adverse effects.

Native grassland: broadly defined as an area where native grassland species comprise 10 percent or more of the total relative cover, as determined utilizing classifications in *A Manual of California Vegetation* by Sawyer, Keeler-Wolf, and Evens (available online at www.cnps.org/vegetation).

Native tree: a tree species that evolved and occurs naturally in a given location.

Natural community: a natural community is a collection of plants that occurs together in a repeating pattern across a landscape. Classification of natural communities follows *A Manual of California Vegetation* by Sawyer, Keeler-Wolf, and Evens, available online at www.cnps.org/vegetation.

Natural open space: lands preserved in their natural, undeveloped condition.

Oak woodland: an oak stand having greater than 10 percent canopy cover, or that may have historically supported greater than 10 percent canopy cover (Fish and Game Code 1361, Oak Woodlands Conservation Act).

Open space: any parcel or area of land that is essentially unimproved, natural open landscape and is, or could be, devoted to open space uses such as the preservation of natural resources, passive outdoor recreation, or for public health and safety.

Open space conservation easement: a legally-binding recorded document that conveys an easement to a public agency over a parcel, or portion of a parcel, to conserve the area's ecological or open space values by prohibiting most types of uses in perpetuity.

Ordinance: a general term for local laws that regulate and set standards for land development.

Parcel map: a recorded map required for a subdivision where four or fewer parcels of land or condominium units are created (i.e., minor land division).

Playas/Playa lakes: a type of temporarily flooded wetland resulting from shallow, circular depressions that are seasonally or semi-permanently filled with rainwater.

Pond: a smaller and/or shallower waterbody formed in the same manner as a lake. From the perspective of the SEA Program, there is no fundamental difference between ponds and lakes.

Pruning: to trim or remove dead, overgrown, or unwanted branches or foliage from a tree or shrub.

Relative cover: the cover of a particular species as a percentage of total plant cover of a given area. In the case of perennial bunch grasses or other native herbaceous species that tend to be patchy/distributed in patches, the whole area should be delineated if native herbaceous species comprise 10 percent or more of the total relative cover, rather than delineating the patches individually.

Reservoir: a man-made lake that is created when a dam is built on a river, and river water backs up behind the dam.

Ridgeline: the line formed by the meeting of the tops of sloping surfaces of land.

Riparian vegetation: plants contiguous to and affected by surface and subsurface hydrologic features of perennial or intermittent water bodies (rivers, streams, lakes, or drainage ways). Riparian areas have one or both of the following characteristics: 1) distinctly different vegetative species than adjacent areas, and/or 2) species similar to adjacent areas but exhibiting more vigorous or robust growth forms. Riparian areas are usually transitional between wetland and upland.

River: a body of flowing water occurring within a channel or linear topographic depression. Rivers are typically larger in size than streams, but, for the purposes of the SEA Program, the terms are synonymous.

Runoff: the portion of rainfall or irrigation water that flows across ground surface and eventually is returned to streams. Runoff can pick up pollutants and debris from the air or the land and carry them to the receiving waters.

Scrub: broadly defined as an area dominated by low-growing shrubs up to two meters in height, which can be further classified to the alliance or association level utilizing A Manual of California Vegetation by Sawyer, Keeler-Wolf, and Evens, available online at www.cnps.org/vegetation.

SEA Protected Tree: any native tree listed in the SEA Protected Tree List (Appendix A) with a trunk diameter that meets or exceeds the diameter indicated for that species in the SEA Protected Tree List, or with two trunks that measure a total of at least eight inches in diameter, as measured 54 inches above natural grade.

Setback: a minimum distance required by zoning code to be maintained between two points, such as between two structures, between a structure or use and property lines, or between a structure and a protected resource.

Springs/Seeps: areas in which groundwater reaches the earth's surface from an underground aquifer and keeps the area wet when there is no obvious source of surface water. This results from an aquifer being filled to the point that the water overflows onto the land surface. Springs usually emerge from a single point and can be the source of a small trickle or stream of water, while seeps generally have a lower flow rate and emerge over a larger area, with no well-defined origin.

Stream: a physical feature which at least periodically conveys water through a channel or linear topographical depression, defined by the presence of hydrological and vegetative indicators. Streams in natural channels may be further classified as perennial (flowing continuously), intermittent or seasonal (flowing only at certain times of the year), and ephemeral (only flowing in direct response to precipitation). Other terms for streams include river, wash, arroyo, drainage, and creek. To accurately document the episodic streams (i.e. intermitted or ephemeral) on development sites, refer to the *Mapping Episodic Stream Activity* (*MESA*) protocols developed by CDFW and the California Energy Commission.

Structure: anything constructed or erected which requires a fixed location on the ground, or is attached to something having a fixed location on the ground.

Subdivision: the division of improved or unimproved land for the purpose of sale, lease, or financing, whether immediate or future.

Take: with respect to animal or plant life, take means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." (Federal Endangered Species Act of 1973.)

Tract Map: a map required for a subdivision consisting of five or more lots or condominium units

Vernal pool: a type of temporarily flooded wetland resulting from a depression in the landscape where a hard underground layer (either bedrock or a hard clay pan) prevents rainwater from draining downward into the subsoils, causing the depression to fill during winter and spring rain events, and gradually evaporate until becoming completely dry in the summer and fall. Because of the weeks of inundation and months of aridity that vernal pools experience, they are not only difficult to identify, but they also provide a unique

habitat for numerous endemic rare plants and animals that are able to survive and thrive in these harsh conditions.

Water Resource: Sources of permanent or intermittent surface water, including but not limited to lakes, reservoirs, ponds, rivers, streams, marshes, seeps, springs, vernal pools, and playas. Additional information about LA County's water resources can be found in the Conservation and Natural Resources Element of the General Plan 2035.

Watershed: the geographical area of land from which runoff resulting from precipitation is collected and drained to a common point or outlet.

Wetland: an area of land that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions, with determinations following guidelines defined in the US Fish and Wildlife Service Classification of Wetlands and Deepwater Habitats of the US (Cowardin, 1979).

Wildlife corridor: a type of habitat linkage which consists of natural areas of sufficient width to permit larger, more mobile species (such as foxes, bobcats, and coyote) to pass between larger areas of open space, or to disperse from one major open space region to another. Such areas are generally at least several hundred feet wide, unobstructed, and possess cover, food and water. The upland margins of a creek channel, open ridgelines, open valleys or the bottoms of drainages often serve as naturally occurring major corridors locally. Wildlife corridors connect two or more core habitat areas in order to promote genetic flow and continuous recolonization of habitats by all plant and animal species within an ecosystem, or between ecosystems.

Wildlife-permeable fencing: fencing that can be easily bypassed by all species of native wildlife found within the County, including but not limited to deer, coyotes, bobcats, mountain lions, ground rodents, amphibians, reptiles, and birds.

Woodland: broadly defined as an area dominated by trees, which may be widely spaced with as little as five percent (5%) cover (e.g. savanna), densely arrayed with nearly complete canopy closure, or various densities in between. Understory may vary from herbaceous to shrubby. Woodlands can be further classified to the alliance or association level utilizing A Manual of California Vegetation by Sawyer, Keeler-Wolf, and Evens, available online at www.cnps.org/vegetation.

APPENDIX A: SEA PROTECTED TREE LIST

** indicates species is listed as a rare plant by California Native Plant Society*

ALTADENA FOOTHILLS & ARROYOS SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Abies concolor	white fir	5”	7”	30”	47”
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arbutus menziesii	Pacific madrone	6”	8”	36”	56”
Arctostaphylos glandulosa (all subspecies)	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus coulteri	Coulter pine	5”	7”	30”	47”
Pinus jeffreyi	Jeffrey pine	5”	7”	30”	47”
Pinus lambertiana	sugar pine	5”	7”	30”	47”
Pinus ponderosa	ponderosa pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus durata var. *gabrielensis**	San Gabriel Mtns. leather oak	3”	4”	18”	28”
*Quercus engelmannii**	Engelmann oak	3”	4”	18”	28”
Quercus wislizeni	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

ANTELOPE VALLEY SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Abies concolor	white fir	5”	7”	30”	47”
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Adenostoma sparsifolium	red shank	6”	8”	36”	56”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa (all subspecies)	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Cercocarpus ledifolius	curl leaf/desert mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Juniperus grandis	Sierra juniper	5”	7”	30”	47”
Juniperus osteosperma	Utah juniper	5”	7”	30”	47”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus coulteri	Coulter pine	5”	7”	30”	47”
Pinus flexilis	limber pine	5”	7”	30”	47”
Pinus jeffreyi	Jeffrey pine	5”	7”	30”	47”
Pinus lambertiana	sugar pine	5”	7”	30”	47”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Pinus monophylla	pinyon pine	5”	7”	30”	47”
Pinus ponderosa	ponderosa pine	5”	7”	30”	47”
Pinus sabiniana	foothill pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prosopis glandulosa	honey mesquite	6”	8”	36”	56”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus cornelius-mulleri	Muller’s oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus kelloggii	California black oak	6”	8”	36”	56”
Quercus palmeri	Palmer’s oak	6”	8”	36”	56”
Quercus wislizeni var. *frutescens*	interior live oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”
Yucca brevifolia	Joshua tree	All specimens	NA	20’ tall	NA

CRUZAN MESA VERNAL POOLS SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Arctostaphylos glandulosa (all subspecies)	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”

EAST SAN GABRIEL VALLEY SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Ceanothus crassifolius	hoaryleaf ceanothus	6”	8”	36”	56”
Ceanothus megacarpus	big-pod ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus durata var. *gabrielensis**	San Gabriel Mtns. leather oak	3”	4”	18”	28”
*Quercus engelmannii**	Engelmann oak	3”	4”	18”	28”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

HARBOR LAKE REGIONAL PARK SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

JOSHUA TREE WOODLANDS SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Aesculus californica	California buckeye	6”	8”	36”	56”
Cercocarpus ledifolius	curl-leaf mountain-mahogany	6”	8”	36”	56”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
*Hesperocyparis nevadensis**	Piute cypress	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Pinus sabiniana	foothill pine	5”	7”	30”	47”
Prosopis glandulosa	honey mesquite	6”	8”	36”	56”
Yucca brevifolia	Joshua tree	All specimens	NA	20’ tall	NA

PALOS VERDE PENINSULA AND COASTLINE SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Prunus ilicifolia ssp. *lyonii*	Catalina Island cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

PUENTE HILLS SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Ceanothus megacarpus	big-pod ceanothus	6”	8”	36”	56”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
*Quercus engelmannii**	Engelmann oak	3”	4”	18”	28”
Quercus lobata	Valley oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

Rio Hondo College and Wildlife Sanctuary SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”

San Andreas SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Abies concolor	white fir	5”	7”	30”	47”
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Cercocarpus ledifolius	curl leaf/desert mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
*Hesperocyparis nevadensis**	Piute cypress	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus coulteri	Coulter pine	5”	7”	30”	47”
Pinus jeffreyi	Jeffrey pine	5”	7”	30”	47”
Pinus lambertiana	sugar pine	5”	7”	30”	47”
Pinus monophylla	pinyon pine	5”	7”	30”	47”
Pinus ponderosa	ponderosa pine	5”	7”	30”	47”
Pinus sabiniana	foothill pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prosopis glandulosa	honey mesquite	6”	8”	36”	56”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”
Quercus garryana	Oregon oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus kelloggii	California black oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Umbellularia californica	California bay	6”	8”	36”	56”
Yucca brevifolia	Joshua tree	All specimens	NA	20’ tall	NA

SAN DIMAS CANYON & SAN ANTONIO WASH SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Abies concolor	white fir	5”	7”	30”	47”
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Adenostoma sparsifolium	red shank	6”	8”	36”	56”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Ceanothus megacarpus	big-pod ceanothus	6”	8”	36”	56”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Cercocarpus ledifolius	curl leaf/desert mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus grandis	Sierra juniper	5”	7”	30”	47”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus coulteri	Coulter pine	5”	7”	30”	47”
Pinus jeffreyi	Jeffrey pine	5”	7”	30”	47”
Pinus lambertiana	sugar pine	5”	7”	30”	47”
Pinus ponderosa	ponderosa pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”
Quercus durata var. *gabrielensis**	San Gabriel Mtns. leather oak	3”	4”	18”	28”
*Quercus engelmannii**	Engelmann oak	3”	4”	18”	28”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

SAN GABRIEL CANYON SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Abies concolor	white fir	5”	7”	30”	47”
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arbutus menziesii	Pacific madrone	6”	8”	36”	56”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Ceanothus megacarpus	big-pod ceanothus	6”	8”	36”	56”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus coulteri	Coulter pine	5”	7”	30”	47”
Pinus jeffreyi	Jeffrey pine	5”	7”	30”	47”
Pinus lambertiana	sugar pine	5”	7”	30”	47”
Pinus ponderosa	ponderosa pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”
Quercus durata var. *gabrielensis**	San Gabriel Mtns. leather oak	3”	4”	18”	28”
*Quercus engelmannii**	Engelmann oak	3”	4”	18”	28”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

SANTA CLARA RIVER SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Adenostoma sparsifolium	red shank	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus monophylla	pinyon pine	5”	7”	30”	47”
Pinus sabiniana	foothill pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus cornelius-mulleri	desert scrub oak, Muller oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”
Quercus garryana	Oregon oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus kelloggii	California black oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus palmeri	Palmer’s oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

SANTA FELICIA SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Cercocarpus ledifolius	curl leaf/desert mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus cornelius-mulleri	desert scrub oak, Muller oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Quercus garryana	Oregon oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus kelloggii	California black oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus ×macdonaldii	MacDonald oak	6”	8”	36”	56”
Quercus palmeri	Palmer’s oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

SANTA SUSANA MOUNTAINS & SIMI HILLS SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Adenostoma sparsifolium	red shank	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Ceanothus megacarpus	bigpod ceanothus	6”	8”	36”	56”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus palmeri	Palmer’s oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

VALLEY OAKS SAVANNAH SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”

APPENDIX B: SENSITIVE LOCAL NATIVE RESOURCES

GENERAL PLAN 2035, CHAPTER 9

The County considers authoritatively defined ***sensitive local native resources***, including species on watch lists, as important resources to identify and conserve.

The **Sensitive Local Native Resources List** is a list of SEA Resources (e.g. species or natural communities) that the County recognizes as particularly rare or sensitive on a local scale, even though they are not listed or ranked as endangered, threatened, sensitive, or rare at the state or federal levels.

The purpose of this list is to aid in the preservation of regional and local genetic diversity. The preservation of locally rare native resources is important for many reasons. For instance, a species may be deemed rare in a part of the County where it occurs only in a few isolated populations or exists at the edge of its geographic range. Such factors actually contribute to greater genetic variation in the species and more resilience in the face of difficult environmental conditions than the same species occurring in the heart of its natural range or in a larger population. Additionally, an isolated population may escape catastrophic events or pathogens moving rapidly through the larger population specifically because of its isolation from that larger population.

Sensitive Local Native Resources may be listed as sensitive County-wide or as sensitive in a particular SEA or group of SEAs. This list is based on vetted documentation, such as peer reviewed articles published in scientific journals and scientifically defensible research and databases compiled by recognized authorities on the subject matter (e.g. Audubon Society for avian species, California Native Plant Society or the Consortium of California Herbaria for plants, etc.). Since the list is based on the best available current knowledge of local resources, it is expected to be expanded or changed as new information becomes available. Proposed changes will be distributed to relevant authorities and experts prior to incorporation into the list. Such authorities may include the Los Angeles County Museum of Natural History, local academic authorities, the California Native Plant Society, regional herbaria (UC Riverside, Rancho Santa Ana, CSU Fullerton, UC Santa Barbara), the Santa Monica Mountains National Recreation Area, or others, depending on the taxonomic group of species included among the proposed changes.

ALL SEAS:

Avian species on the Audubon Society's "Los Angeles County Sensitive Bird List (SEE: Los Angeles County Sensitive Bird Species Working Group. 2009. Los Angeles County's Sensitive Bird Species. Western Tanager 75(3):1-11. planning.lacounty.gov/site/sea/wp-content/uploads/2018/08/LA-Countys-Sensitive-Bird-Species.pdf

In general, unless a more precise local list is available (such as the Vascular Flora of the Liebre Mountains, Western Transverse Ranges, California (see below)), native plant species for which there are 5 or fewer known localities within the County are considered sensitive local native resources. This County-wide list is currently in development and will be distributed to local academic institutions for peer review once completed.

ALTADENA FOOTHILLS AND ARROYOS SEA:

Use County-wide list

ANTELOPE VALLEY SEA:

Joshua Tree Woodland

Juniper Woodland

CRUZAN MESA VERNAL POOLS SEA:

Use County-wide list

EAST SAN GABRIEL VALLEY SEA:

Use County-wide list

JOSHUA TREE WOODLAND SEA:

Joshua Tree Woodland

Juniper Woodland

PALOS VERDE PENINSULA AND COASTLINE SEA:

Use County-wide list

PUENTE HILLS SEA:

Use County-wide list

RIO HONDO COLLEGE AND WILDLIFE SANCTUARY SEA:

Use County-wide list

SAN ANDREAS SEA:

Joshua Tree Woodland

Juniper Woodland

Rare Plants of the Liebre Mountains, Los Angeles County (SEE: Boyd, S. 1999. Vascular Flora of the Liebre Mountains, Western Transverse Ranges, California. (Occasional Publications, No. 5.) Rancho Santa Ana Botanic Garden, Claremont, California, reprinted from Aliso 18(2):93:139, 1999; www.cnpsci.org/html/PlantInfo/Liebre_Rare.htm)

SAN DIMAS CANYON AND SAN ANTONIO WASH SEA:

Use County-wide list

SAN GABRIEL CANYON SEA:

Use County-wide list

SANTA CLARA RIVER SEA:

Big sagebrush Shrubland

Juniper Woodland

Pinyon-Juniper Woodland

SANTA FELICIA SEA:

Use County-wide list

SANTA SUSANA MOUNTAINS AND SIMI HILLS SEA:

Use County-wide list

VALLEY OAKS SAVANNAH SEA:

Use County-wide list

APPENDIX C: INVASIVE PLANT LIST

Planting of the following plant species is prohibited within Significant Ecological Areas (SEAs) due to their aggressive growth and potential to degrade native habitats. Any species not listed here that is listed as invasive by the California Invasive Plant Council is also prohibited within SEAs.

PROHIBITED TREES AND SHRUBS

Family	Scientific Name	Common Name
Anacardiaceae	*Schinus molle*	Peruvian pepper
	Schinus polygamus	borocoi, Hardee/Chilean pepper tree
	Schinus terebinthifolius	Brazilian pepper
	Searsia lancea	African sumac
Apocynaceae	*Nerium oleander*	oleander
Aquifoliaceae	*Ilex aquifolium*	English holly
Arecaceae	*Phoenix canariensis*	Canary Island date palm
	Washingtonia robusta	Mexican fan palm
Bignoniaceae	*Jacaranda mimosifolia*	Jacaranda
Boraginaceae	*Echium candicans*	pride of Madeira
Chenopodiaceae	*Atriplex nummularia*	bluegreen saltbush, old man saltbush
Cistaceae	*Cistus incanus*	hairy rockrose, pink rockrose
	Cistus ladanifer	crimson-spot rockrose, gum rockrose
	Cistus monspeliensis	Montpelier rockrose
	Cistus salviifolius	sageleaf rockrose
Elaeagnaceae	*Elaeagnus angustifolia*	Russian olive
Euphorbiaceae	*Euphorbia dendroides*	tree-spurge
	Ricinus communis	castor bean
	Triadica sebifera	Chinese tallowtree
Fabaceae	*Acacia baileyana*	Bailey acacia
	Acacia cyclops	red-eyed wattle
	Acacia dealbata	silver wattle
	Acacia longifolia	Sydney golden wattle
	Acacia melanoxylon	blackwood acacia
	Acacia redolens	trailing acacia, bank catclaw
	Acacia retinodes	water wattle, swamp wattle
	Albizia julibrissin	mimosa
	Albizia lophantha	plume albizia/acacia
	Caesalpinia gilliesii	yellow bird of paradise
	Caesalpinia spinosa	tara
	Colutea arborescens	bladder senna
	Cytisus multiflorus	white Spanish broom
	Cytisus proliferus	white-flowered tree-lucerne, Canary Island false broom
	Cytisus scoparius	Scotch broom
	Cytisus striatus	Portuguese broom, striated broom
	Genista canariensis	Canary Island broom
	Genista linifolia	flax broom, Mediterranean broom

	Genista monosperma	bridal veil broom
	Genista monspessulana	French broom
	Parkinsonia aculeata	Jerusalem thorn, Mexican Palo Verde
	Robinia pseudoacacia	black locust
	Sesbania punicea	scarlet wisteria tree, rattlebox
	Senna artemisioides	feathery cassia, silver senna
	Senna didymobotrya	African senna, popcorn cassia
	Senna multiglandulosa	wooly senna, buttercup bush
	Spartium junceum	Spanish broom, gorse
	Ulex europaeus	common gorse
Fagaceae	*Quercus ilex*	Holm oak, holly oak
Geraniaceae	*Pelargonium panduriforme*	balsam scented geranium
Hypericaceae	*Hypericum canariense*	Canary Island St. John's wort
Meliaceae	*Melia azedarach*	china berry, Persian lilac
Moraceae	*Ficus carica*	fig, edible fig
Myrtaceae	*Eucalyptus camaldulensis*	red gum
	Eucalyptus citriodora	lemon-scented gum
	Eucalyptus cladocalyx	sugar gum
	Eucalyptus globulus	blue gum, Tasmanian blue gum
	Eucalyptus polyanthemos	silver-dollar gum
	Eucalyptus sideroxylon	red ironbark
	Eucalyptus tereticornis	forest red gum
	Eucalyptus viminalis	manna gum, ribbon gum
	Leptospermum laevigatum	Australian tea tree
Oleaceae	*Ligustrum japonicum*	Japanese privet
	Ligustrum lucidum	glossy privet
	Olea europaea	olive
Pittosporaceae	*Pittosporum crassifolium*	karo
	Pittosporum tobira	tobira, mock orange, Japanese cheeseweed
Platanaceae	*Platanus acerifolia*	London plane tree
Proteaceae	*Grevillea robusta*	silk oak
Rosaceae	*Cotoneaster lacteus*	milkflower/Parney's cotoneaster
	Cotoneaster pannosus	cotoneaster
	Malus pumila	paradise apple
	Prunus cerasifera	cherry plum
	Pyracantha angustifolia	pyracantha
	Rubus armeniacus	Himalayan blackberry
Salicaceae	*Populus alba*	white poplar
	Salix babylonica	weeping willow
Sapindaceae	*Acer saccharinum*	silver maple
Scrophulariaceae	*Buddleja saligna*	false olive
	Myoporum laetum	ngaio tree, lollypop tree, myoporum
Simaroubaceae	*Ailanthus altissima*	tree of Heaven
Solanaceae	*Cestrum nocturnum*	night jessamine, Night Blooming Jasmine

	Solanum aviculare	kangaroo apple, New Zealand nightshade
	Solanum lanceolatum	orangeberry nightshade, lance leaf nightshade
	Nicotiana glauca	tree-tobacco
Tamaricaceae	*Tamarix aphylla*	athel tree
	Tamarix chinensis	salt cedar, chanise/fivestamen tamarisk
	Tamarix gallica	French tamarix
	Tamarix parviflora	small-flowered/fourstamen tamarisk
	Tamarix ramosissima	salt cedar, tamarisk
Ulmaceae	*Ulmus parvifolia*	Chinese elm
	Ulmus pumila	Siberian elm

Prohibited Vines

Family	Scientific Name	Common Name
Apocynaceae	*Araujia sericifera*	bladder vine, bladderflower
	Vinca major	periwinkle
Araliaceae	*Hedera canariensis*	Algerian ivy
	Hedera helix	English ivy
Asparagaceae	*Asparagus asparagoides*	Bridal Creeper, Smilax Asparagus, African asparagus fern
Asteraceae	*Delairea odorata*	Cape ivy, German ivy
Caprifoliaceae	*Lonicera japonica*	Japanese honeysuckle
Fabaceae	*Lathyrus latifolius*	perennial sweetpea, everlasting peavine
Polygonaceae	*Muehlenbeckia complexa*	mattress vine, maidenhair vine
Rosaceae	*Rubus ulmifolius var. ulmifolius*	elmleaf blackberry
Tropaeolaceae	*Tropaeolum majus*	garden nasturtium

Prohibited Succulents and Cactus

Family	Scientific Name	Common Name
Aizoaceae	Carpobrotus chilensis	sea fig
	Carpobrotus edulis	Hottentot fig
	Malephora crocea	coppery mesemb
	Mesembryanthemum crystallinum	crystalline Iceplant, common iceplant
	Mesembryanthemum nodiflorum	slenderleaf iceplant
Aizoaceae	*Aptenia cordifolia*	heartleaf iceplant, baby sun-rose
	Conicosia pugioniformis	narrow-leaved iceplant, roundleaf iceplant
	Delosperma litorale	ice plant, seaside deloperma
	Drosanthemum floribundum	Rosy ice plant, showy dewflower
Cactaceae	*Opuntia microdasys*	bunny-ears
Crassulaceae	*Aeonium arboreum var. arboreum*	blackrose
	Aeonium haworthii	pinwheel
	Cotyledon orbiculata var. oblonga	pig's ear

Prohibited Aquatic Plants

Family	Scientific Name	Common Name
Amaranthaceae	*Alternanthera philoxeroides*	alligatorweed

Haloragaceae	*Myriophyllum aquaticum*	parrot feather watermilfoil, Parrot's feather
	Myriophyllum spicatum	Eurasian/America milfoil, spike watermilfoil
Hydrocharitaceae	*Egeria densa*	Brazilian waterweed
	Hydrilla verticillata	hydrilla
Pontederiaceae	*Eichhornia crassipes*	water hyacinth
Salviniaceae	*Salvinia molesta*	giant waterfern, giant salvinia

Prohibited Ferns

Family	Scientific Name	Common Name
Dryopteridaceae	*Cyrtomium falcatum*	Hollyfern, Japanese netvein hollyfern
Pteridaceae	*Pteris cretica*	Cretan brake ferm, ribbon fern, table fern
	Pteris vittata	ladder brake

Prohibited Annual and Perennial Herbs

Family	Scientific Name	Common Name
Alliaceae	*Ipheion uniflorum*	spring star flower
	Allium vineale	wild garlic
Amaranthaceae	*Amaranthus hybridus*	prince's feather
Amaryllidaceae	*Amaryllis belladonna*	belladonna lily, naked ladies
	Narcissus tazetta	narcissus, paper white
	Pancratium maritimum	sea daffodil
Apiaceae	*Ammi majus*	Queen Anne's lace
Apocynaceae	*Asclepias curassavica*	Mexican butterfly weed, bloodflower milkweed
Araceae	*Zantedeschia aethiopica*	common calla, calla lily
Asphodelaceae	*Asphodelus fistulosus*	onionweed, asphodel
Asteraceae	*Ageratina adenophora*	eupatorium, eupatory, sticky snakeroot, thoroughwort, croftonweed
	Arctotheca calendula	Cape weed
	Arctotis venusta	bue-eyed African daisy
	Argyranthemum foeniculaceum	Canary Island margeurite, dill daisy
	Bellis perennis	English daisy
	Calendula officinalis	pot marigold
	Centaurea cineraria	dusty miller
	Centaurea cyanus	bachelor's button
	Coreopsis tinctoria	calliopsis, golden tickseed
	Cosmos bipinnatus	garden cosmos
	Cynara cardunculus	artichoke thistle
	Dimorphotheca ecklonis	Cape marguerite, African daisy
	Dimorphotheca fruticosa	trailing African daisy, shrubby daisybush
	Dimorphotheca sinuata	African daisy
	Gazania linearis	treasureflower, gazania
	Glebionis coronaria	annual chrysanthemum, garland/crown daisy
	Helianthus tuberosus	Jerusalem artichoke
	Leucanthemum vulgare	ox-eye daisy
	Oncosiphon piluliferum	globe chamomile
	Ratibida columnifera	Mexican hat
	Tanacetum parthenium	feverfew
	Tanacetum vulgare	tansy, common tansy

Boraginaceae	*Heliotropium amplexicaule*	clasping heliotrope
Brassicaceae	*Brassica nigra*	black mustard
	Brassica rapa	field mustard; turnip
	Brassica tournefortii	Sahara/Moroccan/Asian mustard
	Erysimum cheiri	English wallflower
	Hirschfeldia incana	short-pod mustard
	Lobularia maritima	sweet alyssum
	Lunaria annua	money plant
	Matthiola incana	hoary stock
	Sinapis arvensis	wild/charlock/common/field mustard
Caryophyllaceae	*Gypsophila elegans*	annual baby's breath
	Lychnis coronaria	dusty miller, rose campion
	Silene vulgaris	bladder campion
	Saponaria officinalis	bouncing bet, bouncing betty, soapwort, goodbye summer
Chenopodiaceae	*Atriplex semibaccata*	Australian saltbush
	Kochia scoparia ssp. scoparia	summer cypress, red sage, Mexican fireweed
Commelinaceae	*Tradescantia fluminensis*	wandering Jew
Convolvulaceae	*Dichondra micrantha*	Asian ponysfoot
	Ipomoea indica	blue dawn flower, blue morningglory
Crassulaceae	*Sedum album*	white stonecrop
Cyperaceae	*Carex texensis*	Texas sedge
	Cyperus difformis	variable flatsedge, umbrella sedge
	Cyperus involucratus	umbrella plant
Dipsacaceae	*Dipsacus fullonum*	Fulleris teasel, wild teasel
Euphorbiaceae	*Euphorbia lathyris*	gopher spurge
Fabaceae	*Coronilla valentina ssp. glauca*	Mediterranean crownvetch
	Lathyrus odoratus	annual sweetpea
	Lotus corniculatus	bird's foot trefoil
	Trifolium repens	white clover
Geraniaceae	*Geranium robertianum*	herb Robert
	Pelargonium grossularioides	gooseberry geranium
Hypericaceae	*Hypericum perforatum*	klamathweed, St. John's wort
Iridaceae	*Chasmanthe floribunda*	African flag
	Crocosmia x crocosmiiflora	montbretia, crocosmia
	Iris germanica	German iris
	Iris pseudacorus	yellow flag, yellow water iris
Lamiaceae	*Melissa officinalis*	lemon balm
	Mentha spicata	spearmint
	Mentha suaveolens	apple mint, pineapple mint
	Nepeta cataria	catnip
Linaceae	*Linum grandiflorum*	flowering flax, garden flax
Lythraceae	*Lythrum salicaria*	purple loosestrife
Malvaceae	*Abutilon theophrasti*	velvetleaf
	Alcea rosea	hollyhock
Martyniaceae	*Proboscidea louisianica ssp. louisianica*	ram's horn, common devil's claw
	Proboscidea lutea	devil's claw
Myrsinaceae	*Anagallis arvensis*	scarlet pimpernel, birds-eye
Nyctaginaceae	*Mirabilis jalapa var. jalapa*	four o'clock, wishbone bush
Onagraceae	*Oenothera sinuosa*	wavy-leaf gaura
	Oenothera speciosa	Mexican evening-primrose, pink ladies
	Oenothera xenogaura	scented gaura, Drummond's gaura, Drummond's bee blossom

Oxalidaceae	*Oxalis articulata ssp. rubra*	windowbox woodsorrel
	Oxalis corniculata	creeping wood-sorel
	Oxalis pes-caprae	buttercup oxalis, Bermuda buttercup, yellow oxalis
Papaveraceae	*Papaver somniferum*	opium poppy
Plantaginaceae	*Digitalis purpurea*	foxglove
	Linaria bipartita	clovenlip toadflax
	Linaria dalmatica ssp. dalmatica	Dalmatian toadflax
	Linaria maroccana	baby snapdragon
	Linaria pinifolia	pine needle toadflax
Plumbaginaceae	*Limonium perezii*	Perez's sea lavender
	Limonium ramosissimum	Algerian sea lavender
	Limonium sinuatum	wavyleaf sea lavender
Polygonaceae	*Persicaria capitata*	pink knotweed, Himalayan smartweed
	Rumex conglomeratus	clustered dock, creek dock
Portulacaceae	*Portulaca oleracea*	purslane
Ranunculaceae	*Consolida ajacis*	rocket larkspur
Resedaceae	*Reseda alba*	white mignonette
Rosaceae	*Duchesnea indica var. indica*	Indian mock-strawberry
Rutaceae	*Ruta chalepensis*	fringed rue
Scrophulariaceae	*Scrophularia peregrina*	Mediterranean figwort
	Verbascum blattaria	moth mullein
Solanaceae	*Salpichroa origanifolia*	Pampas lily of the valley
	Solanum elaeagnifolium	silverleaf nightshade
Valerianaceae	*Centranthus ruber*	red valerian, Jupiter's beard
Verbenaceae	*Verbena bonariensis*	purpletop vervain, tall vervain
	Verbena pulchella	moss verbena
Violaceae	*Viola odorata*	sweet violet

PROHIBITED GRASSES

Family	Scientific Name	Common Name
Poaceae	*Agropyron cristatum ssp. pectinatum*	crested wheatgrass
	Agrostis gigantea	redtop, giant redtop bentgrass
	Agrostis stolonifera	creeping bent
	Aira caryophyllea	silver hairgrass
	Alopecurus pratensis	yellow foxtail grass, meadow foxtail
	Arundo donax	giant reed
	Briza maxima	rattlesnake grass
	Cortaderia jubata	jubata grass
	Cortaderia selloana	Pampas grass
	Cynodon dactylon	Bermuda grass
	Festuca arundinacea	tall fescue, alta fescue, reed fescue
	Festuca myuros	mouse-tail fescue, rattail sixweeks grass
	Festuca perennis	Italian ryegrass
	Festuca pratensis	meadow fescue
	Festuca trachyphylla	hard fescue, rough leaved fescue
	Holcus lanatus	velvet grass
	Hordeum marinum ssp. gussoneanum	sea barley
	Melinis repens ssp. repens	natal grass, ruby grass
	Pennisetum clandestinum	kikuyu grass
	Pennisetum setaceum	African/Crimson fountain grass
	Pennisetum villosum	feathertop
	Poa annua	annual bluegrass

	Poa pratensis ssp. pratensis	Kentucky bluegrass
	Poa trivialis	rough blue grass
	Polypogon monspeliensis	rabbitsfoot grass
	Stenotaphrum secundatum	Saint Augustine grass
	Stipa tenuissima	Mexican feathergrass

APPENDIX D: SEA CHECKLISTS & WORKSHEETS

1 – SEA COUNSELING CHECKLISTS

2 – BIOLOGICAL CONSTRAINTS ANALYSIS (BCA) CHECKLIST

3 – BIOTA REPORT CHECKLIST

SEA COUNSELING CHECKLIST

BCM & CONCEPTUAL PROJECT DESIGN

This is a checklist just for counseling purposes only. The Case Planner and County Biologist shall review all applicable information, check for adequacy and completeness before scheduling a SEA Counseling meeting. The SEA Counseling meeting may result in further directions/recommendations.

Biological Constraints Map (BCM)	
☐ Shows all project site parcel(s) boundaries[34]	
☐ Existing permitted development (structures, graded areas, roads, etc.)	
☐ Vegetation communities (utilizing Sawyer, Keeler-Wolf, Evens 2009 classifications), and indicating CDFW Natural Community Rarity Ranking, extending out to 200-feet from the project site boundaries[35]	
☐ Map location of native trees that meet the protected sizes listed in the SEA Protected Tree List. Not all trees on the property need to be mapped; only enough to meet the preservation requirements. Do not need to provide DBH or Protected Zones at this stage.	
☐ Location of observed and previously recorded sensitive species (e.g. from site survey, previous biological reports, or identified through CNDDB records, etc.)	
☐ Delineated boundaries of water resources, such as rivers and streams (including intermittent and ephemeral drainages), lakes, reservoirs, ponds, wetlands, marshes, seeps, springs, vernal pools, and playas and required setbacks.	
☐ Important physical site features that may provide important habitat for sensitive species (e.g. rock outcrops) or facilitate or restrict wildlife movement (e.g. ridgelines, culverts, fences, etc.)	
☐ Existing protected open space that has been recorded on or adjacent to any part of the subject parcel.	
Biologist's Initials:	
Conceptual Project Design	
☐ Show the conceptual development footprint and the following information of the proposed project as much as possible. Can be shown on the BCM or a separate plan. - All anticipated graded areas - Existing and proposed structure locations - Fuel modification to 200-feet from all structures - Utility access - Driveways and parking areas - Landscaped areas - Exploratory testing locations	
Planner's Initials:	

[34] Include all parcels or lots involved with the land use project.
[35] Vegetation communities can be estimated offsite using visual surveys from the project site and adjacent roads or trails in conjunction with aerial imagery and existing data.

SEA Counseling Recommendation Form

This form will be filled out by the Case Planner at the conclusion of the SEA Counseling meeting. A copy of the signed form will be provided to the applicant and uploaded to Energov. Applicant must submit this form as part of the full Permit Application package.

SEA Counseling Date:_____

Case Planner
(Print & Sign Name):_____

County Biologist:_____

Address & APN(s) of project site: _____

_____

RECOMMENDATION

☐ **Ministerial SEA Review**
☐ **Protected Tree Permit**
Biologist Site Visit: ☐ **Yes** ☐ **No**

☐ **SEA Conditional Use Permit**
☐ **Protected Tree Permit**

Adequacy of Biological Constraints Map

Does the Biological Constraints Map adequately document the biological resources on the project site?

☐ Yes ☐ No

Ability to Comply with SEA Development Standards

Does the conceptual project design adequately demonstrate the ability to comply with the SEA Development Standards?

Some Development Standards (e.g. fence materials, outdoor lighting, and glass reflectivity) do not need to be shown on the conceptual project design, but the applicant should be made aware of these requirements and should be specified on the site plan when submitted.

☐ Yes ☐ No

All three requirements must be met to receive a Ministerial SEA Review:

☐ Comply with all applicable SEA Development Standards
☐ Building Site Area is no more than 20,000 square feet
☐ Provide Open Space Preservation on-site

Additional Biological Reports Required

☐ BCA ☐ Biota Report ☐ Restoration/Enhancement Plan ☐ Protected/Oak Tree Report
☐ Rare Plant Survey ☐ Protocol Survey for _____ ☐ Jurisdictional Waters/Wetlands
☐ Other:

BIOLOGICAL CONSTRAINTS ANALYSIS (BCA) CHECKLIST

The Case Planner and County Biologist shall initial in the designated section, indicating that the items have been included in the report and that the report is adequate and ready for SEATAC review.

BIOLOGICAL CONSTRAINTS ANALYSIS (BCA) CHECKLIST	COMPLETE
I. COVER / SPINE / TITLE PAGE	
A. Project name, type of report (Biological Constraints Analysis)	
B. County identification numbers (Project number, CUP number, APNs).	
C. Applicant name and contact information	
D. SEA name(s)	
E. Name of head biologist and consulting company directive information	
F. Date of report	
II. INTRODUCTION	
A. Project Description	
1. Project name, type of report, address of project	
2. County application identification numbers including APNs	
3. Applicant name and contact information	
4. SEA name(s)	
5. Supervising biologist, company, directive information	
6. Parcel and Acreage Table (for more than one parcel)	
7. Location	
a) Map of regional features in vicinity showing project location, and including all drainages and wetlands	
b) Color USGS topographic map with outline of project parcels, SEA, open space resource areas, etc.; scale about 1:24000	
c) Color orthogonal aerial showing project parcels, SEA, open space, etc.	
	Planner Initials:
B. Description of Natural Geographic Features	
1. Summary of known biological resources including relation to: a) Landforms and geomorphology b) Drainage and wetland features c) Soils; include soil map d) Vegetation communities e) SEA criteria and resources	
2. Color site photography with keys	
3. Summary of biological resources and pertinent literature review	
C. Methodology of Biological Survey	
1. Table of surveys (surveys approximately 1 year old or more recent)	
2. Text description of survey methods	
3. Table of information on biologist(s) and other contributors for BCA; appendix of contributors' experience	
4. Proof of permits or Memoranda of Understanding for trapping shall be in the appendix.	

III. BIOLOGICAL CHARACTERISTICS OF THE SITE	
A. Vegetation Data and Descriptions	
1. Vegetation map of Sawyer, Keeler-Wolf, Evens (2009) alliances and associations of vegetation types, relevé locations	
2. Vegetation cover table	
3. Map of trees (for jurisdictional oaks, State and County, an oak tree report will be needed. Oak tree reports will be in an appendix.)	
4. Summary of vegetation site habitats in relation to soil, sensitivity, rainfall, potential for impact (Only necessary if there is a possibility of rare plant occurrences that would be made possible by the presence of some important soil type or geological formation)	
5. CD/DVD of georeferenced files for vegetation data as ESRI .shp including metadata (may be combined with other project data on CD/DVD)	
B. Fauna and Flora Sensitive Species Tables and Discussion	
1. Table of sensitive species known from the region, sensitivity rankings, habitat requirements, and likelihood of occurrence on site—with rationale for likelihood determination.	
2. Table of break points on rough estimate of population size (appendix)	
3. Paragraphs for each sensitive species on characteristics that might lead to project impact. Listed species paragraphs in separate section.	
C. Maps of occurrence for sensitive species	
D. Wildlife movement/habitat linkage analysis with map of site and movement areas	
E. Floral and faunal compendia (all plant and animal species observed directly or indirectly on site, and for animals, in adjacent areas of similar habitat), updated for latest observation if multiple versions of the BCA are submitted, version date	
F. All voucher collections shall be deposited in an appropriate, recognized public institution, and shall be tabulated in the floristic and faunal lists.	
IV. CHARACTERISTICS OF THE SURROUNDING AREA	
A. Description of Existing Land Uses in the Project Area	
B. Table of development projects in the vicinity and summary discussion (acreage, units, etc.)	
C. Map of land uses	
D. Description of open space reserves in the area and depiction of wildlife movement/habitat linkage relationships to open space. Include known conservation and open space easements in perpetuity. Refer to maps II.A.7	
E. Reference to and relationship to any conservation plans in the vicinity	
F. Description of Habitats, alliances, associations and vegetative communities in the vicinity with respect to those on site	
G. Rough estimates of the overall population sizes of species of flora and fauna on site and in vicinity fauna on site and in vicinity	
H. Description of overall biological value of the area: fit to the biotic mosaic; contribution to surrounding area and SEA ecological functions	
V. CONCLUSION	
A. Regulatory framework	
B. Summarized biological data with respect to regulatory framework	
C. Biological Constraints Map	

D. Explicit statement of SEA/SERA/ESHA acreages total and in project parcels; explicit statement of length of watersheds on project parcels and total; potential affected area of watercourses	
E. Recommendations for further studies needed to prepare Biota Report	
VI. BIBLIOGRAPHY	
A. Bibliography of references cited in text	
B. Bibliography of general references used to prepare document but not cited	
VII. APPENDICES [as appropriate]	
A. Table of biologists and other contributors; Preparer and other contributor qualifications; permits, MOUs	
B. Vegetation alliance relevé data	
C. Oak Tree Report for sites with jurisdictional native oak trees (5" DBH and larger)	
D. Focused and floristic survey reports.	
E. Floral and faunal compendia	
F. Copies of meeting minutes from previous SEATAC/ERB reviews of project	
G. Correspondence with State and Federal trustee agencies	
H. Completed BCA Checklist (this table)	
I. SEA Counseling Checklist with BCM and Conceptual Project Design	
J. Digital Copies of BCA as .pdf for final version; georeferenced files of vegetative data and sensitive species occurrences.	
	Biologist Initials:

BIOTA REPORT CHECKLIST

The Case Planner and County Biologist shall initial in the designated section, indicating that the items have been included in the report and that the report is adequate and ready for SEATAC review.

BIOTA REPORT CHECKLIST	COMPLETE
I. COVER / SPINE / TITLE PAGE	
A. Project name, type of report (Biota Report)	
B. County identification numbers (Project number, CUP number, APNs).	
C. Applicant name and contact information	
D. SEA name(s)	
E. Name of head biologist and consulting company directive information	
F. Date of report	
II. INTRODUCTION	
A. Summary of project impacts and mitigation	
B. Project description	
1. Project name, type of report, address of project	
2. County application identification numbers including APNs	
3. Applicant name and contact information	
4. SEA name(s)	
5. Supervising biologist, company, directive information	
6. Parcel and Acreage Table (for more than one parcel)	
7. Location (Note, these maps/photos may be excerpts or contain less detail than those submitted in the BCA so long as they provide an adequate indication of the project location and the surrounding area)	
a) Map of regional features in vicinity showing project location, and including all drainages and wetlands	
b) Color USGS topographic map with outline of project parcels, SEA, open space resource areas, etc.; scale about 1:24000	
	Planner Initials:
8. Project and alternatives description a) Site plans; at least one superimposed on vegetation map with topo lines	
b) Grading plans; at least one superimposed on vegetation map, topo lines	
c) Description of disturbance schedule	
d) Permits requested	
e) Alternatives	
III. IMPACTS	
A. Regulatory framework	
B. Tables	
1. Table of impact for sensitive vegetation and species	
2. Table of vegetation type and proposed changes	
3. Table of acreage additions and deductions of SEA land	
C. Discussion of logic on conclusions of significance	

D. Maps [may be combined, but each of the following should be illustrated in one form or other]	
1. Map(s) of vegetation constraints.	
2. Map of proposed vegetation impacts (grading and fuel-modification superimposed on vegetation map)	
3. Map of noteworthy or protected tree species, sensitive plant observations (and animal if highly resource dependent, e.g. aquatics, burrowing owl, etc.), showing removals and disturbance proposed.	
4. Regional and local maps of wildlife corridors and habitat linkages [including regional and statewide efforts (e.g. South Coast Missing Linkages, California Essential Connectivity Project, Puente Hills "Missing Middle", etc.), as well as any site-specific features (ridgelines, drainages, culverts, fencing, etc.) that may facilitate or constrain movement.	
E. Discussion of Impacts—direct (grading and fuel-modification), indirect, and cumulative impacts to each of the following must be discussed	
1. Vegetation, with note of any sensitive vegetation types (refer to State and Global sensitivity rankings included on the CDFW Natural Communities List) or noteworthy natural stands that may be unique to the site.	
2. Special-status species, including any locally-recognized sensitive species (e.g. the Los Angeles Audubon list of Los Angeles County's Sensitive Bird Species) and unusual sightings of otherwise common taxa (e.g. *Gilia diegensis* in the Liebre Mountains, *Petalonyx thurberi* in the Santa Clara River, etc.)	
3. Protected and noteworthy trees	
4. Wildlife habitat, including wildlife corridors and habitat linkages	
5. Project impact on integrity of the SEA	
F. Discussion of project consistency with SEA CUP compatibility criteria	
1. That the requested development is designed to be highly compatible with the biotic resources present, including the setting aside of appropriate and sufficient undisturbed areas	
2. That the requested development is designed to maintain water bodies, watercourses, and their tributaries in a natural state	
3. That the requested development is designed so that wildlife movement corridors (migratory paths) are left in an undisturbed and natural state	
4. That the requested development retains sufficient natural vegetative cover and/or open spaces to buffer critical resources, habitat areas, or migratory paths	
5. That the roads and utilities serving the proposed development are located and designed so as not to conflict with critical resources, habitat areas, or migratory paths	
V. MITIGATION MEASURES	
A. List of impact and mitigation measures that apply. The following aspects of SEA impact must be addressed:	
1. Acreage remaining as natural open space and percentage of original	
2. Existing designated open space on and adjacent to the parcel in question	

3. Short and long term measures & preservation instruments that will provide protection of natural open areas	
4. Type and amount of landscaping; utilization of locally-indigenous native plants; prohibition on invasive plants	
V. MONITORING PROGRAM	
A. Directly applicable to addressing impact; measurement of biological response to mitigation	
B. Performance standards	
C. Alternatives for failure to meet performance standards	
D. Funding and bond establishment	
E. Schedule	
F. Responsible parties	
G. Adaptive management	
V. BIBLIOGRAPHY	
A. Bibliography of cited references	
B. Bibliography of general references used to prepare report but not cited	
V. APPENDICES	
A. Table of biologists and other contributors; Preparer and other contributor qualifications; permits, MOUs	
B. Oak Tree Report for sites with jurisdictional native oak trees (5" DBH and larger)	
C. Focused and floristic survey reports.	
D. Copies of meeting minutes from previous SEATAC/ERB reviews of project	
E. Completed Biota Report Checklist (this table)	
F. Correspondence with State and Federal trustee agencies	
G. CD or DVD of BCA and Biota reports as .pdf & Georeferenced shapefiles (ESRI .shp, geographic) for vegetative maps and observations of sensitive species	
	Biologist Initials:

APPENDIX E: GUIDANCE FOR EVALUATING IMPACTS ON WILDLIFE MOVEMENT

The Department of Regional Planning (DRP) considers linkage of natural areas as one of the most critical elements for maintaining the County's environmental quality and biological diversity. These linkages promote healthy biological populations and increases their resilience against environmental impacts of all kinds, including climate change. Linkage is essential to preserving genetic diversity and maintaining the complexity and functioning of natural communities that provide services for all life. Potential impacts to wildlife movement opportunities are a part of the Department's analysis of environmental impacts under the California Environmental Quality Act (CEQA). We recognize that all wildlife needs to move across various spatial scales in support of regular daily and seasonal activities. In addition, these linkages are necessary for the permanent movements of individuals and potential long-term shifts in species range in response to climate change.

When evaluating impacts to wildlife movement in a heavily populated and extensively developed region like Los Angeles County, it is important to remember that ecologically ideal conditions for wildlife movement rarely exist. Wildlife dispersing or moving between habitat blocks in the County are bound to encounter constrictions and obstacles, both artificial and natural. Yet wildlife are resilient, and in the absence of ideal circumstances, many will utilize whatever movement opportunities exist – navigating through constricted areas and moving around, over, under or through obstacles, when necessary.

Therefore, analysis of potential impacts to wildlife movement cannot rely exclusively on identification and evaluation of the project's impacts to intact or ecologically superior corridors. All potential wildlife movement pathways, including those with existing obstacles and constrictions, such as roads, pipelines, aqueducts, and landscaped or otherwise altered terrain, must be identified and evaluated. The value of constricted or tenuous pathways should not be overlooked or undervalued simply because they are perceived as being rarely used or not ecologically pristine. Doing so ignores the reality that such tenuous linkages and islands of habitat are in many cases the only remaining opportunities available to wildlife in the County.

Biological consultants preparing analyses of project impacts to wildlife movement must consider the existing and post-project opportunities present to wildlife to enter and exit the project site. An adequate assessment of impacts is one that looks at the cumulative impacts of the proposed project in light of existing constrictions and obstacles. When evaluated in this light, a proposed development may actually be able to improve wildlife movement by removing obstacles or including provisions to facilitate safe passage as part of the project.

The standard for wildlife movement analysis entails studies that check for use of possible corridors on a daily basis for a period of three (3) years or more (usually by motion-activated cameras). This is expensive and requires a lengthy period of observation, so most projects will not be doing this kind of study. Analysis will chiefly be conjectural, and it is important that the wildlife movement discussion in biological reports observe this point, presenting drawbacks and opportunities equally balanced. Los Angeles County will generally regard as insufficient analyses of movement which emphasize what an opportunity is not (e.g., it doesn't provide cover; it is not dominated by native plants; it doesn't get used very often; it is not aligned along a ridge line, water feature, or drainage; etc.). Instead discussion should concentrate on what possible use could occur (e.g. "the culvert is a tenuous connection between useable habitat areas"). Such analyses should include what wildlife would use if the landscape were unfragmented and then consider use under fragmented conditions. If wildlife had a choice, what is the optimal path without the project, and what is the choice under proposed conditions of fragmentation? The goal is to posit the effect of a proposed project on existing wildlife movement.

All photos by J. Decruyenaere